

DIALOGUE WITH LAROCHE

The Science Behind Glass-Steagall

On Thursday, Feb. 10, as extraordinary events were unfolding in Egypt, the American economist and statesman Lyndon LaRouche addressed a private gathering of approximately 75 individuals, gathered in New York City.

The gathering included international representatives from Russia, China, India, Egypt, and Ireland. They were joined by a large group of leading American economists from California, New York, New Jersey, Massachusetts, and Connecticut, most of whom comprise what has been referred to as the greater Stanford Group.

Joining Mr. LaRouche was Sky Shields, the leader of his organization's science group (referred to here as the "Basement Team"). The event was moderated by Mr. LaRouche's national spokeswoman Debra Freeman.]

We begin with Mr. LaRouche's opening remarks following Freeman's introduction.

LaRouche: Okay. I should say, first of all, I have an associate of mine with me here in the studio, Sky Shields, who is the leader of the science group for our organization, because I thought perhaps that some of the international people, as well as others, would like to hear his response, when questions which might be directed to him, come up. So, he's here in the studio, and he's watching me—I suppose I need watching, or at least some people think so. So, that's it.

Now, I think the topic we ought to consider is this: We are now, actually, with the rate of hyperinflation inside the United States, and also in Europe, in particular, and in Brazil, also, we have generally, in the trans-Atlantic region, we are dominated by a rising rate of hyperinflation. There is no sign of any recovery of the U.S. economy in sight for the years ahead, as of now. And my view is, as long as this current President remains President of the United States, there is no chance for the United States to recover, and also for Europe, because if the United States goes down, then, knowing the situ-



EIRNS/Stuart Lewis

Lyndon LaRouche and Basement leader Sky Shields address a private gathering, by videoconference, of economists and diplomats on Feb. 10.

ation in the British system and other systems, *Europe will not survive a collapse of the U.S. economy.* We are now actually in a hyperinflation.

There are remedies. But they are remedies which must be *chosen*. And that's the situation.

I know the President is telling lies, our President here; well, he's good at that, but not much else. But we are in, actually, we're on the scale of a hyperinflation, which is comparable in general mathematical terms, to what happened to Germany in 1923. The difference is, Germany, in 1923, was under attack by the Allied forces, led by Britain, and therefore, the hyperinflation, then, was essentially confined to the boundaries of the German nation. Therefore, the process of unfolding of the hyperinflation was more predictable, once it started.

Now, we're dealing with a hyperinflation of the world economy. That is to say, that outside of the Asian sector, in which there still *is* some progress under way, that in the trans-Atlantic sector, we're dealing with a general breakdown crisis. That is, we're dealing with a kind of hyperinflation, which is concentrating money, as counted, in pure speculation. At the same time, the amount of physical production, per capita and per square kilometer of territory, is rapidly declining, at an accelerating rate. We are already in a significant part

of an accelerating hyperinflationary process, in the trans-Atlantic region. We're vulnerable to a sudden breakdown, of any significant instability of certain types.

In other words, you can not, as I have always insisted, you can not predict results in an economy. You can forecast the effects of a choice of alternative policies. But you can not predict something mathematically. You can examine what the conditions are, and determine what the likelihoods are, but the ultimate result depends upon the choice.

In the case of Germany in 1923, there was no room for choice! We now have a situation globally, where there *is* room for choice. But one of the choices has to come from the United States, which, at this stage, really, means this President should be thrown out of office for mental incapacity, and the 25th Amendment of the Federal Constitution provides for that, under Section 4 of the 25th Amendment of the U.S. Federal Constitution. And this man who is President, is fully qualified to be ejected from office, on the grounds of mental incapacity to serve.

As long as he remains in the position of President, and as long as the Republican Party behaves as it's behaving itself, and the Democrats continue to be as cowardly as they are, we are looking at the prospect of a general breakdown of the planet, starting in the trans-Atlantic region, which may be triggered first in Europe or in the United States; but the collapse in either Europe or the United States, will mean a complete trans-Atlantic collapse of the whole system. That means that you will have, even Asian nations, such as China and India, which are somewhat more stable and actually having some growth, in that event those nations could not withstand the effect of a collapse of the trans-Atlantic system.

As I've indicated, I have Sky Shields here—I remind you of that—because we may have some interesting

questions. The nature of the questions is largely, as many people know, what I've been pushing for over the past, most of the recent months, into the year, have been pushing for the installation of a general reform called NAWAPA, the North American Water and Power Alliance. This would result in a recovery of the United States, provided we went back to a Glass-Steagall operation first.

In other words, if the United States declared the Glass-Steagall principle as operative, we would then stop the hyperinflation inside the United States. The hyperinflation is what's called the "bailout," which has actually been in progress for a longer period, but it's been explicitly the case, since the Autumn of 2008. If the bailout were reversed, and it could be reversed by simply the adoption of the Glass-Steagall Act, which was initially introduced by President Franklin Roosevelt in 1933: If that Act were installed, you would immediately cancel—cancel—several trillion dollars, or more, of absolutely worthless waste, which is on the books presently. I would estimate about \$7 trillion would be eliminated from the debt of the United States, by the enactment of Glass-Steagall.

Now, as you should know, the British Empire has threatened the United States, that it will not tolerate the United States reenacting Glass-Steagall. That threat was delivered, prior to the Nov. 2 [2010] election inside the United States. And as of now, under this current President, the Glass-Steagall is blocked, and some idiots in the Congress are also committed in the same direction.

But, at the same time, we have a worsening situation, an alarming situation, which means that sheer panic may cause people to go to Glass-Steagall as a way of saving the nation, and saving the world. Because, if the United States goes down now—and it could go down in *weeks or months*, which, I don't know; nobody can know, because that depends upon what the decisions are, but we are in a trend-line—if this trend-line continues, the United States is going down, if Europe doesn't go down first. And if Europe or the United States goes down, you're going to have a chain-reaction effect in the trans-Atlantic region which will sink the entire planet into a dark age.

This is where we stand.

So, the situation is extremely serious. And the only remedies for this lie in reenacting Glass-Steagall, and



LPAC

Without the restoration of Glass-Steagall, LaRouche emphasized, the nation will die. So, for the bankers, it's Glass-Steagall or jail, as this LPAC cartoon conveys.

the present commission [FCIC], investigating the history of this collapse, leads to that conclusion—that is, the evidence is clear on that.

So, if we do that, we can make it. If we don't do it, then either the collapse will occur in the United States first, or Europe first, and then the whole planet goes. And it could happen weeks from now, it could happen months from now; these things can not simply be predicted statistically. But if the mistake is made, or if these remedies are not applied, then it is going down. And if the United States continues on its present policy, under this present President, I can guarantee you, that before the year is out, the world will have gone into a breakdown crisis. So, that's the point.

Now, to indicate what the remedies are, go back to the Glass-Steagall question, and also to the NAWAPA program. The states of the United States—and our system in the United States is different than any European system; the Constitution is different. Europe in no case—you've had periods where Germany for example, would go in this direction, other states would go in the direction of the United States model. But if the United States goes under—it's the only system

which could actually spark a general recovery in any part of the world. First of all, under our laws, under Glass-Steagall, we would cancel 7 or more trillion dollars of debt officially on the books of the United States, now.

The cancellation of that debt would enable the United States, under its policy, to utter new credit, by going to a credit system, not a monetary system—new credit which would enable us to, first of all, save the states of the United States. Every state of the United States is now either hopelessly bankrupt, or on the verge of going into bankruptcy. The whole nation is bankrupt! The rate of increase of unemployment is accelerating. The conditions of life in the states, elementary conditions, are being ruined. And in the meantime, the President, and the idiots who support him, are pushing, again, more and more hyperinflation!

So, it's a short fuse.

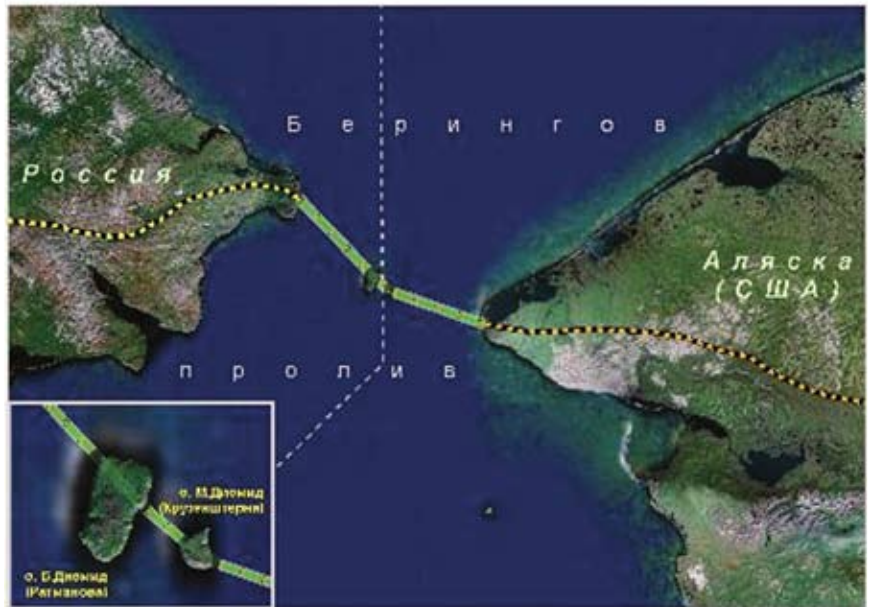
But, with Glass-Steagall installed, we could immediately resuscitate the stability of the several states of the United States. Federal credit, as credit, could be uttered, under our laws, under our Constitution, *immediately*, to pull these states out of destruction!

NAWAPA Would Change the Planet

But we would then need a major project, to reverse the post-industrial trend in the U.S. economy. That would be done. NAWAPA would do it. Now, Canada in the past, is not too supportive of the idea of NAWAPA. But now, they face a situation, where they don't have any choice. It's either they adopt NAWAPA, if the United States offers it, or they die! They have no alternative. And it is beneficial to them, so there's no cheating of them in NAWAPA.

This project would change the planet. This project would mean a change in, instead of using existing resources on the planet, we would organizing a system which would, by increasing the power and water flowing through the U.S. system, would generate a revolu-

The tunnel across the Bering Strait



Council for the Study of the Productive Forces

The linking of Siberia and Alaska through the Bering Strait Bridge/Tunnel is just one of the many revolutionary development projects which can and must begin, immediately after the Glass-Steagall restoration.

tion, not only in the United States, but elsewhere.

For example, the development of NAWAPA would mean the Bering Strait Tunnel, between Alaska and Siberia. The development of that tunnel would mean opening up parts of Siberia, in Russia, which have valuable mineral resources within them. And under a credit system, Russia would be able to have the credit, to open up those facilities. These facilities are necessary for China, in particular, and also for India and other Asian countries, because you have large populations like China and India, who are short of essential raw materials.

There is, in the northern part of Eurasia, there are essential raw materials there! The Russia science, or the Vernadsky tradition, is capable, with financing to do it—is capable of opening up the opportunities for development of raw materials, mineral forms, which are essential for the future of China, India, and other countries of Asia; which would be a stimulation immediately, for South Korea, for Japan, and for other countries in Asia.

Now, this would mean a new system.

Then, you go to the other side of the thing: The same concept means—let’s take Africa, or let’s take Egypt, right now: Egypt has been suppressed in its potential, since the collapse of the program for Egypt in 1982, which the United States and Britain collapsed! At that point, Egypt had a bold, imaginative, and capable program, for development of its economy. Since 1982, at the time that, under pressure from Henry Kissinger and others, Egypt backed off from this policy, the quality of Egypt’s life has deteriorated.

Now, we take Egypt together, and give it a chance to get back on its feet, with these kinds of programs. And then, you look at Eritrea, you look at Ethiopia, you look at Sudan, and the adjoining territory of Chad, which is a very interesting territory, a very poor country with a very interesting potential, as the so-called Transaqua policy project indicates. We can then, on the basis of this kind of thing, with the development of railway systems, new kinds of railway systems, we can open up the development of Africa.

We can actually connect every part of this planet, by rail line, or something superior to rail, landlines, with means like an evacuated tube, up to 1,000 miles an hour—that’s what the potential is. It’s a little bit over the horizon, but it’s a known potential right now. This means we can connect Eurasia, and Africa, and the Americas, in a continuous land-based system of transport for development. The Darién Gap between South and North America is a connecting point.

So these are the options before us. They require a recognition, that we have to get out of what is called a monetary system.

Now, the United States’ Constitution, which is unique in its concept, unlike the imperialist relics which still run Europe—the monetary systems, the monetarist systems which dominate Europe, and Asia, and Africa, today—the U.S. credit system is based, not on trying to assess a value on money, of a monetary asset, but is assessed on the basis of the *physical improvement*, per capita and per square kilometer of territory, of a nation. So the nation utters credit, based on its scientific confidence, that a certain kind of project, undertaken by the United States, will actually more than pay for itself, if it’s given a certain estimated time to do that job.

We can extend this principle, through the cooperation with nations which are now hanging on the verge of bankruptcy. We can extend that, through cooperation among sovereign nation-states, to create a fixed-ex-

change-rate system, a fixed-exchange-rate *credit-system*, by which we can wipe out the worthless debts, the pure monetarist debts of the world; organize the world on a fixed-exchange-rate *credit-system*, which is actually what Roosevelt’s intention was for the post-war period, before Truman came along, and in that way, we have a chance to go ahead, not only to recover what we have lost in recent years—we have the chance to take mankind to heights that mankind has never dreamed of before!

These are practical considerations now. *This* can be done. We’re on the verge of doing it. Give us 20 years—we’ll change the planet. We can bring justice to every continent on this planet, even the ones that are not connected, like Australia and New Zealand. We can do it! And that should be our mission.

But to do that, means we’ve got to change some of the rules of behavior. We’ve got to put the world out of the present monetary system, because the monetary system of Europe is just as bankrupt, as that of the United States! Europe will never recover, without cancelling the present monetarist system. Europe can only recover under a credit system.

Take the case of Germany in the post-war period, when [Hermann] Abs was leading in the reconstruction of Germany. Germany was operating on a *credit system*—the so-called “German miracle” of the immediate decade and a half of the post-war period was on a credit system, modeled upon the U.S. credit system.

So if we can go back to Franklin Roosevelt, and reach agreement on establishing an international credit system, as a fixed-exchange-rate credit system, on a global basis, *among sovereign nation-states*, we have the means to revive science. It’s going to take time, because we killed a lot of the science over the past 30, 40 years. But if we go back to a dedication to revive a science-driver approach to humanity, we can solve these problems before us. And in the meantime, once we start down that road, we’re on the road to security, and the threat of a crash of the world system, comes to an end.

And part of the work we’re doing, which is why I brought Sky in today, to have him available—Debra knows what the score is on that!—because he’s involved, first-hand, on teams of scientific workers who are engaged in much of this kind of work to which I’ve referred today.

So, back to you, Debbie.

Dialogue with LaRouche

Freeman: Lyn, I know from the earlier discussion that we had here, we have many questions that will undoubtedly require Sky's input, and I was going to introduce him right after you got done speaking, but you did that so I don't have to worry about it.

What came up while you were speaking is a question that is asked by one of our Russian friends, who would like you to comment on it more for the record; and also from one of our friends from Ireland, here, who is trying to catch up a little bit. What essentially is at issue is the following: Our Russian friend says, "Look, we are well aware of the fact, that in Tunisia, in Egypt, and in other places as well, the current instability that we see is not confined to what's going on inside those countries; and although some people like to dwell on human rights abuses, really, there are more fundamental issues at stake: We really are dealing with a product of a global crisis, and with that, we could not agree with you more.

"However, what you have said, on more than one occasion, is that what occurred in Tunisia, and then, subsequently, what we're seeing now in Egypt, is a product of this global hyperinflation. Now, we've spent some time actually studying the Angelides Report, and we understand very clearly how this hyperinflationary spiral operates within the United States, and certainly we can see how it operates within our own country. What we need some clarification on, is how, in fact, this has affected Tunisia, Egypt, etc., where it would seem, at least to someone with a more limited understanding, that the problems that they face, the economic problems they face are more internal. We don't see it that way, but we would like your comments on this, for the record."

LaRouche: Well, first of all, in these countries, we're dealing with imperialism. And if Russians may remember Rosa Luxemburg, who defined imperialism accurately, where others did not: She was one of the few people in the world, who understood what imperialism is. That it is not a colonial system, although there may be colonial features in imperialism. Imperialism is the existence of an international monetary system, which is dominated by one power, essentially, or a group of powers, the same as one; and that this monetary system is not a colonial system, but the monetary system itself, which dominates the relationship, in trade and so forth, *among nations*, is imperialism. This is the form of imperialism, which was begun, as an imperial system, by

ancient Rome. It started from the Isle of Capri, where this monetary system existed.

Now, the Roman Empire as such, by name, collapsed. And the Roman thieves who ruled Rome fled to the swamps of the northern Adriatic, and hid there, with their treasures, for some time. Meanwhile, power went from Rome, to Byzantium, and Byzantium became the new Rome, the second Rome. And when Byzantium began to disintegrate economically, about 1000 A.D., and the Venetians moved in, you had the old Venetian system, as a monetary system—not as an empire, in the sense of physical empire, but controlling the monetary systems of Europe!

Then, this collapsed in the 14th Century; then it was started again, after the Renaissance, in an attempt to destroy the Renaissance, and you went through the so-called Catholic form of Renaissance, their anti-Renaissance movement, which collapsed in the middle of the century.

Then you had the rise of [Paolo] Sarpi, the so-called Liberal system, which was the New Venetian Party, as the new empire. And it became an empire, because the imperial system of Venice, of Sarpi, went to the Netherlands first, and the Netherlands was the new Venice, the base of Sarpi's system. Then you had William of Orange, who crossed the sea, kicked out the Stuarts, and set up the kernel of a British empire. And the British Empire was not the British Empire, it was the new Venetian empire. Because what Britain represented under these guys, particularly after the Seven Years War, was a Venetian system, the New Venetian system, the so-called "Protestant" version of the Venetian system. And the world, Europe, has been dominated by that Venetian system!

Now, the exception was, Nicholas of Cusa, who was a genius leader of the Renaissance, of the 15th-Century Renaissance. He said, at a certain point, seeing what was happening in Europe, under the Venetian influence, "We must cross the oceans, to meet the people on the other shores of the oceans. And we must build, in those areas, a society which is capable of curing Europe of its disease, of imperialism, of a monetarist system."

There was an effort to do that, initially, following Columbus, in South and Central America, in the Hispanic-speaking area, but that failed, because the Venetians, under the Habsburgs, had control of this area, and suppressed the brave attempts by Spanish-speaking settlers in the New World.

So then, what happened, in the beginning of the 17th

Century, is, you had a launching in Massachusetts, what's called Massachusetts, and there, we started a system which represented European culture, largely English, Dutch culture, French culture, as in Quebec. And this culture of European culture, was transplanted, *in freedom from* the grip of the Venetian system or the British system, while the Europeans with their culture, were still simmering under control of this New Venetian system, as a successor to the older forms of Roman Empire, the United States was a bastion to defeat, to oppose—.

In other words, we in the United States, up until the recent time, when more Asian people and so forth [began] coming in; we in the United States, or what became the United States, actually were the same kind of culture, the same general kind of culture, as the nations of Europe from which many of our people came. But the difference was, while we had the same basic culture, language-culture, art, and so forth, *we had freedom from imperialism*, freedom from monetarism.

The difference about the United States, in its tradition and so forth, is, we are intrinsically, an *anti-monetarist nation*, as a republic. We have a lot of the other kind in us. Wall Street, for example, is the other type; it's really part of Britain. So therefore, as long as we had the strength, to defend our Constitution against the monetarist systems resident in Europe, specifically the British monetarist system, because the British gold standard and other mechanisms of the British controlled Europe. And therefore, while we are the same culture, except for immigrants from Asia, and so forth, we are of the same culture as the European culture, we are in a sense, legally, Constitutionally *free* of monetarism. Though there are efforts by Wall Street and other places to introduce monetarism.

What has happened to us, since 1971, when the monetarist system was reintroduced to the United States



The republican tradition of the United States, epitomized by that son of Massachusetts, Benjamin Franklin, represents the available alternative to the imperialist system, whose implosion is causing the current worldwide revolt. Here, Franklin, painted in 1778, by Joseph Duplessis.

under Nixon, we have now come again, under a monetarism system. That's why we're bankrupt.

That's why our Constitution is so important: Because it gives us the embedded, Constitutional authority, to take those initiatives, in the United States, which would liberate the world of monetarist systems! Now, I think the people of China, the government of China, right now would be happy, with that kind of arrangement with the United States. I think other countries would also be happy with that arrangement. And therefore, it is our mission—remember, we come chiefly from Europe. We are essentially, in our cultural background, a European culture, the same culture as other Europeans, in general. But we have a *freedom* from monetarism,

built into our founding of our nation and its Constitution.

Therefore, if we are freed, to offer what Roosevelt offered before he died, a fixed-exchange-rate system, and he meant a fixed-exchange-rate *credit* system, not a monetarist system. But it was the 1971 reintroduction of the *monetarist* system, as an *international monetarist system*, which has led to this. And the worst of it came in, of course, with Alan Greenspan, and his reforms, which have largely destroyed us, morally, as well as financially, and economically, inside the United States.

But, if we free ourselves, if we conspire, with Europeans, and China, and India, and other countries, if we conspire to free Africa from this, we can do it! Because Europe knows what it's suffering. Asia knows what it has suffered. And our job is to convey the fact that by going away from a *monetarist* system, which is implicitly imperialist, which very few Europeans seem to understand; Rosa Luxemburg was one of the few economists who had the brains to understand what the difference between a credit system and a monetarist system is.

And therefore, going back to the idea of the *credit system*, from the United States, that initiative, under conditions of the present world crisis, *if we in the United States have the guts, to kick this sick-minded President out of office, as our Constitution provides us the means to do so*, and simply go back to Glass-Steagall, the reenactment of Glass-Steagall, now, would give us the means, to get our Federal states out of bankruptcy, get them back into life, and start the process of rebuilding our nation, on the basis of a credit system.

And in order for our nation to succeed, we must cooperate with other sovereign nations, who share the same intention, and do what Franklin Roosevelt intended to do, for the post-war period, [which] is to create a credit system, a fixed-exchange-rate credit system among nations.

The British Empire Caused the Crisis

Now, in the case of North Africa, the biggest problem here, is food. Why do we have these problems? Because the North African rim, from Algeria across to Egypt, and down into Chad, and down into other parts of Africa, has created a condition of starvation! Look at the production of food in Egypt in 1982, and look at the production of food in Egypt today! Look at the standard of living in Tunisia. Look at the standard of living in other states: *The imperial system of the current British Empire has created the shortages, which caused the eruptions in these countries!*

There are two reasons for it; one's generational. First they were starved, because *they were denied the ability to maintain their own food supply!* And you look at the history of the food supply of Egypt from 1982 on, when they were *suppressed*, and not allowed to develop their country; look at the same thing in Tunisia. Look at the same thing in other countries in North Africa; look at Chad, look at Africa in general! Look what's been done to the Africans, by the British: All of Africa, essentially, is a British colony! A colony of British-style slavery, and mass murder of people!

That's why they were that way. There is no such thing as these internal problems. Look at the case of Tunisia, like the explosion of Tunisia: You had an area which had been more prosperous, or really semi-pros-



Creative Commons/James Buck

The food crisis in Egypt, as in other countries, is the deliberate result of British imperial policy, imposed in that country since 1982. Here, an Egyptian girl eating her meager meal, back in 2007.

perous anyway, which was peaceful. Then, the result of the British policies, imposed on Tunisia, through the European system, was now suddenly—an area which had been a livable area, growing its own food supply—all the people who had the ability to get jobs elsewhere, left! And left only the poor behind, with poor resources!

Then you look at the situation in Egypt: The same thing. Look through the entire area. Look at the conditions of life—going into that part of Asia: You're seeing misery! You're seeing a revolt against *misery!* Imposed by *evil!* And the evil is the British Empire.

There's no special case for these countries. Yes, they have special cases, special cultures, religions, and so forth, shadings of religion, and so forth, but that's not the problem. The problem is, the entire planet is now being hit, by a vast *food shortage*, organized by the monetarist system, which controls trade in foodstuffs! You see, as in Egypt, the production of food, since 1982—a catastrophe in food supply! Same thing in Tunisia; same thing elsewhere.

There are no indigenous forces behind this crisis. There are effects on indigenous situations, which cause this crisis. The effect is located in one place: The British Empire. And it's the British Empire, to be defined, not as some idiots in textbooks define it, but a

British Empire based on the *British monetarist system*, and the British monetarist system dominates the world, because, since 1971, when the fixed-exchange-rate system was pulled down, by traitors to the United States from within, the result was, since that time, a general decline of the world. A decline in food, a decline in production, the skills of production have been lost. People who were, and areas of the United States, which used to be productive, are no longer productive. People are out there, getting a living by begging, practically, or conditions tantamount to begging.

And the question is, do we have the courage, and will, to recognize this problem, and get rid of it! What I see, despite our despairing conditions now, we have the means—one chance remains to us; if we take it soon enough, we can solve this problem. It's going to take the will, it's going to take the will, led by leading nations, nations which are respected, because they're powerful nations; and Russia, China, and India, are typical of the powerful nations, or potentially powerful nations, which have the ability, together with the United States, to *force* this kind of reform!

Put this whole system through a bankruptcy reorganization system: Go from a monetarist system to a credit system; establish a fixed-exchange-rate credit system; adopt the perspective of large projects, which are going to *change* the character of this planet; increase the productive forces of labor, and we're out of the problem. Maybe not immediately, but it's the difference between going down and going up.

You may be going up from a very poor condition, which is what the planet condition is now, but it's better than going down! And what we're headed for right now, we're on the edge of a chain-reaction of disintegration. Very simple: Count the amount of so-called financial assets out there, what are claimed as financial assets. Now look at the portion of those so-called financial assets, which corresponds to *actual production* of food and essentials: What you have now, is you have a monetary explosion, a hyperinflationary explosion, with a collapsing physical economy, collapsing per capita and per square kilometer.

And what we have to do is, we have to say, "Get rid of this monetary system!" this monetarist system, *which is killing us*. It's killing all of us.

Do we have the guts to do it? Do we have the combined forces to be able to force this through? If we do, we can survive.

The Universe Is Creative!

Freeman: One of the things that came up this morning, during the discussion of a monetary system versus a credit system, which was an important issue that I believe was largely resolved, is the whole question of the measurement that's used to determine progress in an economy. Because, whether you're talking about Tunisia, or Egypt, or Russia, or the United States, everyone keeps looking at these ridiculous numbers that say, "We've experienced a 7% rate of growth, this rate of growth," etc., and in fact, that's all obviously an illusion. It's the growth of the bubble.

But what was established by our friends from Stanford, and they proved it very nicely for some of our guests, by using your Triple Curve Function, is that it's not simply that people are lying or parroting an illusion, but that, in fact, as that bubble expands, and expands now exponentially, that that, in fact, itself, has the effect of destroying the physical component of economies.

But the question that came up, and was asked by one of our friends from Russia, and although some of the Stanford Group representatives made a great attempt at answering it, they didn't quite answer it. I know they didn't answer it, because I happen to know more what the answer is. But it's now been put on the table, by the Russians, by the Stanford economists, and also by our friend from Ireland.

They're saying that there's no argument that a credit system is preferable over the current monetary system, but that, really, what we have to establish, as we find our way out of this current crisis, is really to define what economic value is. And not only how you determine economic value, but as several members of the Stanford Group are saying, that, while on the face of it, it appears to be a philosophical question, that it *is*, but that it is also scientifically knowable and measureable, and that you have done it repeatedly.

Lyn, they'd like you to comment on that. And certainly if Sky wants to say some things about it, in relation to the work in the Basement, I think that would also be useful.

LaRouche: I'll refer to what the Basement has done on this. We have one of our members, working with the others, who has done a recent study pertaining to the history of life on this planet. That doesn't have everything to do with every bit of life, but the argument of the presentation is clear in all essentials, has been presented. It was presented in about 45 minutes, and that presentation is conclusive, at least for scientists, any



LPAC

The North American Water and Power Alliance (NAWAPA), shown in a schematic depiction here, represents the next step in man's exercising his creative power in the universe, and thus, will redefine, upward, the concept of value in the economy.

scientist who's involved in this sort of thing.¹

In other words, we start from unicellular life which we know on this planet, and we see how the action of life itself has changed the planet. And then you get to the point, you first, finally, get to an oxygen environment, which is what we presented in this report by him; and then, the oxygen environment, as it increases, creates the ozone layer. And the progress from the oxygen environment, which gives you the water system, begins the revolution on Earth.

Creativity existed beforehand! Forget all this talk about the fixed boundary conditions of life. There are no boundary conditions to mankind. There is no such thing as that—the so-called zero-growth potential—not true! The universe is creative! Look at it! The universe grows and changes, it goes to higher forms of organization, even from what we know about it, so far. And the same thing is true of Earth.

Here's Earth: How did Earth get a magnetic field? It grew one! Was the magnetic field important? Yes! Well, then, who did some of it? Well, little unicelled organization, beings, did that. And they evolved, they changed. The system went to a higher state. There is no such

1. See the LPAC video, "The Science of Glass-Steagall," featuring Cody Jones and Michelle Fuchs (<http://www.larouchepac.com/node/17323>).

thing as a law of entropy! There's only entropy of some people's heads, especially certain professors.

So, we went from then, to a water environment, which is a product of this oxygen revolution. The oxygen revolution led to the ozone area, which gives a protective layer for higher forms of life to occur.

So you're saying the universe is intrinsically creative. Forget the so-called Second Law of Thermodynamics: a piece of crap! Only idiots would actually believe in it.

Therefore, and man comes into the picture, when? As a product of this development. What's the difference

with man? Man's the only animal which is creative. Some animals are creative by their nature, or by evolution, of this kind of evolution into higher forms. But man is the only agency, as Vernadsky defines, in terms of the Noösphere, which *willfully* creates a higher state of organization in the universe.

Now, what do we live on? Take iron, the best example of this. Now, how do we get iron? Well, it was collected by little unicellular animals and plants. They gobbled up iron, as part of their bodies, and probably in areas where more water was involved, or similar kinds of things. So the little animals died, little plants and animals died; what did they leave behind? A concentration of whatever they assimilated into their little bodies, including iron.

We come along, and we want to use some iron. We go to the area where there's been a concentration of these bodies of these little creatures who died there, and we find a good concentration of iron. We go to the area where the iron is most richly concentrated, hmm? And we start to use it up!

Then we have to go to iron which is less well-concentrated. Now, how do we do that? Well, mankind has got a very simple solution: It's the solution of Prometheus, always. We go to a greater degree of power. What mankind has done, even in man's [early] existence, is that mankind goes to a higher energy-flux den-

sity: We go from burning trash, to wood, to charcoal, and so forth, all the way up.

Now, we've reached the point, that for mankind to succeed on this planet, we must tear down all windmills, we must destroy all solar collectors, because they're fake! They are very inefficient, they're energy-inefficient; they cost more than they're worth. And we go to nuclear power, thermonuclear power, and we go on to higher orders of power. Because mankind is able to deal with the shortages which we apparently create, by using up what was left to us, by creatures that died, we, now, by going to higher orders of energy-flux density, we're able to increase our power.

We're now at a point, where we are going with the NAWAPA project. The NAWAPA project is also, always an intimation, of going to space travel, the characteristics of it. If you build NAWAPA, you're going to have effects on the Arctic and other parts of the world, which are very significant for Siberia. Mineral deposits in Siberia: How are you going to develop that? You're going to use higher forms of power, you're going to create systems, you're going to start changing the environment, as we're changing the environment with NAWAPA, by its installation. We're increasing the rainfall pattern; we're turning the desert areas into fertile areas. How? By increasing power, man's power. How do we do that? By scientific progress, and by the complementary cultural progress that goes with scientific progress.

Man becomes more and more valuable to us. Man is a more powerful creature, per capita, on the planet and in the universe. There's no limit to where mankind will go in the future.

Aristotle's Anti-Promethean Doctrine

Let's take the other side of the thing. Where's the other side of the thing, from Aristotle, and so forth? People are taught the doctrine, of the anti-Promethean doctrine, the doctrine that man is inherently limited, and that man must not progress. The doctrine was, some people are the gods, they're the rich people, they're the people who control society, and their problem is they've got to control this society. They need the work of the poor slaves, the human slaves and serfs. But they don't want the human slaves and serfs to get too smart! Because, if they get too smart, they won't put up with the



Creative Commons

The British Royal Virus, also known as Queen Elizabeth's consort Prince Philip, is a prime example of the oligarchical principle, especially in his calls for reducing the world's population, and promotion of that aim through the World Wildlife Fund.

oligarchs! And therefore, the oligarchs have the policy of the so-called Second Law of Thermodynamics: "Don't let these human creatures get smart, or they won't tolerate us."

We live under a culture, a European culture, for example, and other parts of the planet, which is what? It's the *oligarchical principle!* That a small oligarchy must manage the other human beings of the planet, as if they were animals, and prevent these animals from becoming too numerous. Because if they become too numerous, they're going to need to develop; and if they develop, then they're not going to be stupid any more. So you won't be able to control them. And that's why you have the World Wildlife Fund of this fascist, Prince Bernhard, who was a Nazi, who married a Dutch princess, and no improvement to anything.

And then you have the crown prince in England [Prince Philip], the World Wildlife Fund. What's the policy of the World Wildlife Fund? *Genocide!* What's the policy of the British Empire? *Genocide!* What's the policy of the President of the United States, today? *Genocide!* Just like Hitler, the same T-4 program, by this current President, pushed in, and he brought in a British racist, [Sir Donald] Berwick, to help implement it.

So the point we have to understand here, is, man-

kind is inherently creative. And I think, you know, as in Russian reference, you always say Vernadsky. Vernadsky is a follower of Riemann in his method; he is the man who really understood and discovered the principle of human life, the so-called Noösphere. We are members of the Noösphere. We have the potential of creativity; we have the potential of increasing our power, on behalf of mankind. We can solve the problems!

Not that each of us can solve the problem, but we, with our successive generations, by raising our children and grandchildren, in ways that they are progressing, as people of the Noösphere—there's no limit to what mankind's destiny may be in this universe. We're now in a very modest frame, but we can do better! I won't do better, I'm too old to do too much better, right? But we can have coming generations who will. And our lives mean what we mean to coming generations. The meaning of our lives, is what we're doing for *future* generations, to make future generations possible, the future generations which will do what we can't do. And that's the position we've got to take.

We have to realize that the universe is intrinsically anti-entropic, the characteristic of the universe is anti-entropy, and the destiny of man, lies in man's power, creative power, to reach higher stages of anti-entropy.

Therefore, NAWAPA itself, implies that we're going into space, not to find residences on Mars, but we will, at some distance, visit Mars. We will also create an environment, with water, with magnetism—if you make oceans on Mars, you'll get magnetism. Just plant some life in oceans on Mars, and you're going to start to get magnetism. The first thing you know, you're going to get an atmosphere. Maybe not right away, but it'll take a little time to do that—these things do take time. But that's the way to look at life. It's the way we see human creativity; it's the way we define humanity, which is crucial.

What Is 'Infrastructure'?

Freeman: Hmmm! One of our Russian participants gave a very interesting presentation this morning on the question of entropy versus non-entropy, or anti-entropy. And the point that he made, which was augmented by a presentation by one of our Stanford friends here, is the fact that, indeed, the Biosphere, if you will, is inherently anti-entropic. And the unique feature that man plays, is that man can willfully extend that process of anti-entropy.

Now, this then led to a discussion, around the question of investment and infrastructure. One of our leading American economists came back to something that had been addressed during our last get-together, which was this overall question of infrastructure, and an insistence that we have to redefine infrastructure. That, yes, take the example of the United States. You have many people who need jobs, but just giving them any kind of job, will not solve your problem. And it came back to discussion of NAWAPA.

Now this led to something that was brought up by one of our friends from Russia, who wanted me to submit it to you. He said that inside Russia right now, there's a raging debate, as to which direction Russia will take. And as we've discussed before, you have some people who believe the future of Russia lies in the information superhighway and other such things. And while Russia's developing this capability is fine, that what Mr. Putin has posed, as the real challenge for Russia—Lyn, they wanted your comments on this, in the context of this entropy versus anti-entropy question—is the whole question of Siberia.

Because, what Mr. Putin has said, is, if you look at it now, Siberia would appear to be a desolate area. Yet, it has the richest concentration of mineral resources, etc., etc. And that, just a question of developing Siberia is not simply a question of, "Do you give people jobs here, or jobs there?" but that, in fact, the development of Siberia would not only improve life in Russia, but that it would improve life on the entire planet. And that it's in that area that we have to look, when we talk about infrastructure, when we talk about investment, when we talk about jobs. And the Russians were referring to this, as essentially, their NAWAPA.

So, they ask if, in your view, they are looking at this in the right way? Is there something you'd like to add, to advance this view?

LaRouche: Yes, well, first of all, infrastructure is a very bad word, because the way it's commonly used is utter nonsense. And the idea of providing work as such, is also nonsense. Now, there's certain kinds of work we require be done. But if you look at it from the idea of "what're we going to do today?"—as if we were going out to plant potatoes or something. But if we look at it from the standpoint of the future—

Now, the European culture actually developed with the fall of the Persian Empire. But that didn't work out too well, because Aristotle got in there, and made a mess of it, among other things. And, what happened



Jim Linwood

The mission of mankind today is not to build “infrastructure” as separate projects, but as a transformation of man’s relationship to the universe, said LaRouche. Thus Siberia, shown here, will be transformed, from a desolate area with a few factories and rails, to higher forms of organization, which will raise the platform of existence for all peoples.

with Europe, Europe became a development: You know, the waters of the oceans were rising 400 feet, from the high point of the glacier, and as the Strait of Gibraltar became open, the Black Sea, which had been originally a glacial lake—the melting of glaciers had created the Black Sea, so-called—and then, one day, the waters were rising in the Mediterranean, and they broke through into this lake, and they put a salt layer on top of it, and it’s called the Black Sea. And below there, you will find, in the area which is deprived of oxygen, you will find wooden structures of people who had lived there, when it was a freshwater lake.

So, the planet is always evolving. Now, what came out of this process was a maritime culture. That is, the most efficient way of moving goods from one place to the other, from an economic standpoint, was maritime culture. And you had people who would come in, largely from the Atlantic Ocean, chiefly, into the Mediterranean. And they became a dominant culture, because people who could navigate across and find their destination on a star map, are far different from the guy who’s just paddling next door.

So the culture of these people who were oceanic, a maritime culture, became dominant. And among the maritime culture, there developed in the Mediterranean region, a system of tyranny, which became known as the oligarchical society, the oligarchical principle. Therefore, you had a difference between the so-called “gods,” as you find in the references in the ancient Greek writings, and the people, the slaves, the mortals.

So, the mortals were the poor—you know, they were the cattle. And they were kept in good order, not too numerous, not too influential, and you would slaughter them once in a while, just to make sure they didn’t become too many of them. So you had this “gods-vs.-mortals” system. And the people who dominated the maritime culture, built up a system, which we call today a monetarist system; they dominated the Mediterranean.

Now, the first really interesting breakthrough in this process came with Charlemagne. And if you want to start to understand, or define for other people, what a system is, against infrastructure, look at what Charlemagne did. Up until that time, except for some access to large rivers, by maritime culture, there was no significant development of the interior of the European continent. Now, what did Charlemagne do? Charlemagne did many things, but he began to connect these rivers of central Europe, from the Pyrenees on to the East, and developed this system as a system of navigation; which now meant, that the interior of Europe, could now develop at a rate, with relative advantage over maritime culture!

However, this process continued into modern times. And the change came, with the railway system, with the development of the transcontinental railway system, a process which really started inside the United States. The first thing, to develop the United States internally, we used a waterway system—rivers, canals, just as Charlemagne had done—rivers and canals. And the original development of what became the United States

was the development of rivers and canals.

Then we built railway systems, starting with the 1820s. The railway system in Pennsylvania was the first successful one of this type, to get coal from Reading, on the Reading Railroad, down to Philadelphia. Then we extended railway systems, along the banks of rivers, because the railway was the quicker, more efficient way of transportation.

So initially, we developed the river banks railway systems. Then, we branched out to go with larger systems.

Then, with the Civil War, under Lincoln's initiative, we developed a *transcontinental* railway system. The result of this, was the cause for World War I. When the model of the United States, of a transcontinental system, was adopted by Bismarck, and adopted in Russia, for the famous Trans-Siberian Railway system, the British said, "We now have a world war on our hands. We are going to destroy those nations, which have developed transcontinental railway systems and similar kinds of things, because *we will lose our power as a sea power over the world!*"

Now, these are the examples of what you mean, not by infrastructure, but by platforms. In other words, the change from a maritime culture, so we could develop the *inland* territory of the world, by a combination of river systems, connected by canals. And that system still exists in Europe today. From the Pyrenees east, you still see Charlemagne's system en route there. And the secret of the development of continental Europe was that!

Now, what are we doing? We, in the United States, now, we have developed the transcontinental railway system, and that became a driver for all the things we did; it changed the way we lived. And European science and American science were the leaders of the world in this field.

So, we then went to large-scale, what we call infrastructure: highway systems, industrial systems, new kinds of cities, the educational system—the public educational system! Going to beyond a secondary education, to a higher education, and the scientific revolution that occurred, in the last part of 18th Century. The continuation of the scientific revolution up to the time of Bismarck, in terms of Europe and the United States, and elsewhere: These are platforms. That is, they are something which transform a mere territory, into a *higher form of existence*, a qualitatively higher form of existence.

The NAWAPA Platform

Now, we've come to a period, with the NAWAPA project; and now, with nuclear power, and so forth, we've come to a still-higher level, even than nuclear power. The development of the NAWAPA system would be the *greatest system ever built on this planet to date!* Greater than the Three Gorges Dam. The Three Gorges Dam is a midget compared to the NAWAPA system.

So, this is a *platform*.

Now, what does this mean? We are going to change the rainfall pattern of the United States, with this project. We're going to increase the rainfall pattern! And other things of this type. We're also going to explore the Arctic, because this whole project involves the Arctic. The Arctic is an area which is of particular importance to us, as in Alaska in particular, and to Canada, for similar reasons, and also in Russia, in Siberian Russia, and so forth.

We now have to understand the Arctic, because the North Pole, or the magnetic North Pole, has been the center of organization of *life* on this planet, from way back! So therefore, we now have to understand how this planet is organized. And, you know, we're looking for a polar flip, you know, a magnetic flip of the polar system, as being probably in progress. We're asking about that, when we talk about the change in the weather patterns in the United States. We look like we're overdue for a shift in the magnetic poles.

And, in the Basement, as Sky can talk about this: We are actually trying to get more evidence to understand what this thing might be, and how we could deal with a flip in the magnetic pole! Which has occurred, we know, in past times; we have never experienced it in our literary history, and we have to be prepared for this flip of the magnetic pole.

And so, these are the kinds of things that lead us into raising the level at which mankind operates. Don't talk about "infrastructure" as this or that little thing. Talk about a "change in the quality of mankind's relationship to the universe," starting with man's relationship to Earth.

So we create a new definition of Earth! With forestation, all kinds of systems! Transportation systems! We redefine the meaning of *individual action!*

The idiot says infrastructure is—you know, I built a cooking dish in my backyard. That's not infrastructure. That's infrastructure, but that's *not* what we're talking about. We're not talking about gadgets. We're talking about changes in the dynamic relationship to his envi-



To understand anti-entropy and creativity, you have to look at the development of the Solar System and the galaxy, argued Basement leader Sky Shields. Thus you will see there is no such thing as absolute time and space. Here, an image of our galaxy, from LPAC-TV's "Our Extraterrestrial Imperative, Episode 2-Cosmic Rays."

LPAC-TV

environment. By changing the characteristics of the environment, in such a way that man can progress. We, therefore, at the same time, have to educate man, in what we're doing in science. We have to get man able to *understand* the higher order of platforms, on which mankind is going to operate! We have to understand nuclear power. We have to understand thermonuclear power, thermonuclear fusion; we have to understand the higher orders of power that we're going to require!

Mankind is going to have more power, per capita, at his hands, in the future, if we do this, than could ever be dreamed of before. And it's that power, to the individual, given by this kind of development, which is the basis for mankind's ability to progress. And we have to have an intellectual development of mankind, which accompanies these increases in power, and the ability for us to *invent* higher orders of increasing power. That's the way to look at it.

Think big! Don't think small. The Earth is big, the universe is bigger. You want to keep company with the universe? Think big.

Measuring Entropy/Anti-Entropy

Shields: Do you think it's worth addressing... I think there's some wrong assumptions in their measurement—.

LaRouche: Why don't you think about it?

Shields: All right. I'm almost certain that the quantity you're measuring as entropy and anti-entropy is the wrong quantity. This is something we've been discuss-

ing recently in the Basement, is that there's no such thing, really, as entropy, especially as defined by Boltzmann, but in general, as discussed outside of the work of Vernadsky, it depends upon some very incorrect assumptions about the existence of absolute space and absolute time. And as a result, you get a false idea of entropy as being some kind of absolute value, something that you can treat as having an independent quantity, when the proper way to view it is as a relativistic quantity.

There is no such thing as absolute entropy, really, as you can see manifested in economic processes. Entropy is what happens when you try to stand still. It really does exist as a relative value. But to be able to measure it, you've got to have a different sense of what the ontological significance of time is.

Now, Vernadsky has got a very clear sense of this, in particular. You guys will have access to, I imagine the questioner will have access to some of Vernadsky's work in this area, in particular some of the work he did later in life, but that he makes very clear was derived from all the early work that he did on biogeochemistry.

And looking at exactly the processes that Lyn just described, looking at the development of the Earth, looking at the concept of "anti-entropic"—and we'll define what that means, I think, in a second—of the Earth, and then man's activity on it. And what he was able to conclude: There's no representation of time, there's no existing geometric representation or mathematical representation of time, that expresses the actual

ontological significance of what time is. And so, what he says, is, you want to scrap that, and instead, you want to look at the phenomena of creativity and anti-entropy directly.

The first thing he takes a look at, he investigates it as it exists in living processes. And he draws a clear connection between the kind of handedness that Pasteur observed, in living processes, and the anti-entropy that you see in living processes, the directedness to their—that you measure time with respect to living processes, in terms of the changes, but specifically, in terms of the type of anti-entropic [activity] that they take. And from that you derive anything. . . . Whatever you want to call physical space-time has to be derived from that kind of physical activity, that anti-entropic activity.

And what he concludes, is that it's impossible to have, a) a linear time, but then, b) he says it's impossible to have a homogeneous time. And you really do have a heterogeneous time, if you want to be ontologically precise in what you're discussing when you use the concepts of time and space. You've got to recognize that the action of living processes is creating a very distinct thing that we mistakenly attach the same word "time" to, as you see in non-living processes. The same thing happens with human activity on the planet. What you call "economic time" is as distinct from "living time," as living time is from an abiotic time.

And, in the juxtaposition of these processes, in the juxtaposition of these kinds of qualitative types of anti-entropy, in that you can find a real definition of entropy, that is *not* the definition that Boltzmann uses, it's not the definition that Clausius uses, and it's not the definition of anybody who comes after, trying to modify it. And you'll find it avoids all the problems that their definitions get you trapped in.

To this day, Boltzmann's attempt to try to reduce entropy to mechanics, his attempt to introduce statistical mechanics, doesn't work. The attempt to try and resolve its problems requires people to go into just insane directions in cosmology, introducing the Big Bang, etc. They're adding epicycle after epicycle, and still it's not an adequate representation of real process, because they're not recognizing Vernadsky's breakthroughs on the subject of life, and then Lyn's further breakthroughs on the question of economic time.

If you do that, you'll have a definition of anti-entropy that will be much more significant than the one you're applying now, and it will go to the earlier question, I think, of trying to determine economic value;

that'll be your basis for determining economic value.

LaRouche: Debra?

Freeman: Yeah, I'm here. Hold on just a second.

Okay, here's the thing, and Sky's answer got right to the heart of this. In an attempt to take this question and give it an application to economic systems and economy planning, what I should tell you is that, earlier today, we had two presentations from Stanford, which caused quite a huge ruckus here. I think it would be very useful to get some comments on it, in light of what Sky just went through.

Because, what people here tried to do, was to essentially identify that if you were trying to measure growth in a national economic system, that the terms of measurement you would use, you would do it in terms of measuring the relative energy-flux density, of the power that's employed for whatever process you're talking about, and look at it from the standpoint of how that—what kind of increase you're getting, what kind of net increase you're getting in the output of production, and the net productivity, and overall quality of life of your population.

And that if you look at things that way, that that does give you a certain basis, or a certain measure, by which you can actually define progress, by your population or by your national economic system, by which you can also define the decline. Right? Because there's no rule that says, that in the United States, and in other countries as well, that there's no law that says that governments will take actions that will lead to progress. Very often, as has been the case here, you see actions taken that lead to a decline.

Now, here is what caused the big controversy: Everybody seemed to accept that, as a standard of measurement, or as a yardstick, if you will, a kind of convenient yardstick, if you're trying to measure economic growth. But then, what happened, is that a representative of one of the committees of the Stanford Group made the assertion, that what had come to them as a tremendous shock, as they began to apply this principle or this yardstick, was that the move to invest in windmills and in solar collectors, wasn't just a poor investment, or that it wasn't merely "inefficient," but that what it actually did, in fact, was that it worked to lower the rate of net output, and also not just of the immediate productivity, but of the potential productivity, of the economy as a whole. And that, therefore, you would have to identify this as essentially—it's not just that it's

not efficient, [but] that it's *entropic*, in the way that they are defining entropic.

This caused a huge upset here. Because it's not just a question of what's better—solar power or nuclear: Where do you get greater output? But the argument that was put forward by this little task force, was that, in fact, moving in the direction of windmills and solar, the so-called “alternative” forms of energy, doesn't just not help, but that they do damage, within the context of the entire system!

And I think that it was a very useful presentation, certainly a provocative one, but there is a request here for Lyn, and Sky if he wishes to, to comment on this, in this context.

Chlorophyll: The Upward Evolution of Living Forms

LaRouche: Well, first of all, remember that in the history of life on this planet, of which we know less than we should, but we know something about it, as one of our colleagues did a good job in a presentation, recently on this thing—no, the point is, that, what you do, when you take human beings, and you introduce the human being as a cost factor, and what they do as a cost factor in society, then what you're doing, is, you're not only lowering—you're wasting, you're committing waste. And it's more than waste. What you're doing is, you're taking your society, and making this crap a cultural feature of behavior of your whole population.

Now, look what's happened as a result of this now, that the Green movement, so-called, is the greatest force of destruction of humanity that has been unleashed on this planet, *more destructive than any war we ever fought!* And we've had some pretty bad wars. Because, the energy-flux density, of course, is very low: Every time you build a windmill, what's the cost of these windmills, as opposed to the alternative? What's the cost of these solar panels, apart from the fact that you don't want one on your roof; because if you get a fire, you have to quit, and run away as far and fast as you can, because you'll be killed! Because, when one of those things starts to burn, as it will tend to, especially if it's on your roof,



Both windmills (left) and solar collectors (below) are worse than useless, LaRouche said. They are a product of the murderous Green movement, and should be dismantled, and banned. “What are you doing with a windmill and with a solar collector? You are destroying society!”



US Air Force/Nadine Barclay

you leave the neighborhood immediately. Don't try to save anything—get the hell out of there, right away! Because this thing will unleash a charge; if you get near it, it'll kill you! So run away from your neighborhood, immediately, if it starts!

Now then, you take the other side of the thing, and you get a much clearer thing, when you look at solar collectors. First of all, they're impossible, in terms of economics. They're just not possible! There's no way you can justify solar collectors. And, it's worse than

that, because, what happens to the sunlight? What happens to the sunlight, which is supposed to help you with the chlorophyll? Solar collectors will turn—will demonstrate the principle the question's asked about—will immediately destroy whatever territory you put them in. Why? Because the solar radiation, which chlorophyll turns into all kinds of good things, is put out of business. So the solar collector is an act of insanity.

Now, it's more than an act of insanity; it's an act of insane people. The insane people include the British monarchy, especially Prince Philip, who's behind this. First of all, these methods of so-called power are very costly, relative to anything else. In its full lifetime, even at an exaggerated price, a windmill, if you take the period from the cost of its construction to the cost of its necessary destruction at the end of its life, the cost to operate and maintain it, the thing is *completely* uneconomical. It's negative! Solar collectors: You take away sunlight, what are you doing? You're creating desert.

It is chlorophyll which makes sunlight work for us. Why? Well, what's chlorophyll? Chlorophyll is a part of the thing we talked about earlier. Chlorophyll is an evolution, on the planet, of living forms. It is these living forms that made the planet livable with any kind of living form. It is these living forms that make the planet tolerable, for human beings.

The evolution, the upward evolution of living forms, from little unicellular creatures, exists! What are you doing with a windmill and with a solar collector? You are destroying society! And most of this environmentalist crap is of the same nature.

For example, in general, on top of it, if you do not go, to nuclear and thermonuclear fusion, now, and beyond, you're killing the human race. Because, what's happening is, in order to maintain life on Earth, we have to go to higher states of anti-entropy, higher energy-flux density of power! That's why you can not have a planet, a cultured planet, without nuclear power! And nuclear power is not good enough! Nuclear fission is not good enough, you need thermonuclear fusion, and you need things beyond that.

So, you are always—actually, you have a certain kind of attrition. Which is not what Clausius says, but it's a certain kind of attrition of this nature: That mankind, as life on Earth, as we know it, as life on Earth transformed the Earth into a higher form, was able to capture more power from outside it, in the development of life. If you reverse that, it's a loss. If you don't improve upon it, it's also a loss. Because for mankind to

continue to live, we must increase the power available per capita and per square kilometer. If you try, at a fixed level of development, you are killing mankind! If you're not increasing the energy-flux density, which is what we're going to have to do: This is what NAWAPA begins to do.

And you can apply this kind of project elsewhere in the world, the same project—I mean the Transaqua project there, is the same kind of thing. We have to introduce higher energy-flux density technology, and replace lower energy-flux density, by higher, *even to stay even!*

So therefore, if you are staying even, if you have a zero-technological-growth society, you're destroying mankind. You're a mass murderer. That's the point.

There is no such thing as a fixed system. The whole history of life on this planet: *There are no fixed systems, that work. Either progress or die!* Progress, or go extinct.

And what are we doing? Look at what the effect—take the ideological effect of windmills and solar collectors. Now, this kind of idea was very popular with the Nazis, back in the 1920s, the Green conception. It was started by the Nazis. And that was not a good system!

But look on the other side, the history of life on this planet shows that the planet has to increase the energy-flux density of throughput, and this is done largely through the effects of living processes. It's done by other ways, but living processes are the most interesting. And therefore, if you have a person, who's being stupid, by being a Greenie, he's a drag on society! If you have zero-technological-growth society, you're a drag on society. And that's what's happened: By eliminating high energy-flux density, and high rates of capital formation, you are destroying mankind.

It's not merely staying the same: You have to progress! Mankind has got to go into space! There's no way of not going into space. How many of us go into space, that's another question: but mankind has to directly intervene, within the solar system and beyond! We know that we have to intervene with the galaxy! That's a pretty big thing. But mankind is going to have to deal with the forces in the galaxy, which determine many of the things that happen to life on Earth! The 62-million-year cycle, for example. And life on Earth is governed by the galactic principle. I mean, the Solar System is something dancing around the edges of the galaxy! And we depend upon that galaxy! So, the galaxy is part of

our home. And the galaxy is part of a collection of galaxies.

So there is no limit to man's responsibility. We are going to have to develop more power, as mankind, more in the sense of physical power, to master forces beyond anything we can dream of today. But we don't have to get upset about that. All we have to do, is do enough progress, so that we're always progressing, and meeting the challenges that confront us immediately.

But our idea of man's destiny, man's destiny is a creative force inside the universe, and that's the only way that mankind can continue to exist.

Because, you know, sooner or later, the Sun's going to blow up! Or become damned unpleasant in the meantime. You won't want to be here, when it happens. It's only a billion or so years to come, or maybe some hundreds of millions of years, but that's an unpleasant experience, and you've got to get on the case and be prepared to make the changes in mailing address.

Shields: It's a fraudulent idea, and Cody and Michelle's video,² I think makes clear, there's no such thing as equilibrium, even in the Biosphere. The idea that, the notion that, for instance, the Biosphere, nature, is sort of in some delicate balance which it can stay in indefinitely, just isn't true. If you look at the history of the Biosphere, and you look at its current state, in order for even it to survive, it has to move to successively higher and higher states. That, I think, sort of makes it even clearer, how ridiculous it is, to think that somehow we, as a species, would be capable of exercising what's popularly called "sustainable development." Which I think is a funny name, because it's not sustainable. The idea—there's no activity that you can take, there are *no* activities you can take, that have zero physical costs, measured in physical terms.

The costs, as you've said, the costs for solar panels and windmills are immense—just the physical costs, for one thing. I mean, we have made the point before, the only way you might have, that a windmill could be completely wind power in the way that Greenies talk about, it would be if it were made out of wind, or if you constructed solar panels out of Sun. There's a definite cost, an immense cost in terms of resources. But then, the cost is bigger when you're measuring what you don't do. You're measuring the advances that aren't being taken, I think this is where your platform concept becomes important.

2. Ibid.

If you take a look at the advance to thermonuclear fusion, that's not something you do just to generate power; that's something you do to transform the whole space in which we operate. For instance, the ability to move human beings, safely, from the Earth to Mars, depends upon the development of the ability to produce constant acceleration at about 1 Earth gravity. You can't do that using chemical rockets; you can't do that using any existing fuel source that's been developed thus far. The only fuel source that would give you the kind of specific impulse that's needed, that would give you the proper ratio of thrust to actual mass, quantity of fuel used, would be thermonuclear fusion. That's just sort of one example of it.

If you take a look at even fission, and you look at all of what you might call the spillover technologies connected to it, it's not a question of just trying to get power from something, or trying to figure out what's going to give you electricity. It's a question of doing the same thing, we, as a species, as you see the Biosphere does in its own development, which is the complete transformation of the space in which you're operating.

And again, I think if you take up Vernadsky's view of it, you'll see that it actually is a transformation of the physical space-time. That's not sort of something nice to say. You're going to have to redefine what you mean by space and time, in order to define the kinds of actions we're talking about, and to define what you actually mean by anti-entropy.

And it's only by doing that, that you have a very clear idea of, a) what the platform concept means; and then, b) how you define economic value.

LaRouche: Okay, Debra?

The Universe Is Our Object

Freeman: The principle that's being discussed, and this is a question which we here are trying to make sure we're understanding correctly: It operates from what Lyn is describing, and again, this is within the context of an economic system, while it certainly operates from one platform, if you will, to the next, the question is, doesn't it also operate within the given platform?

And here's the specific example that's being raised: Let's say that what you're talking about is an oil-based economy, for the moment. Obviously, the first thing that's going to happen, your activity is going to be directed to areas where the oil is richest, and where it's most easily accessible. And that would seem to be obvious, and it would seem to be efficient. But at the same

time, if you employ this idea of the introduction of new technologies, or improved technologies which employ relative—at least relative to what you were doing before—higher energy-flux density, then that would allow you to essentially use those technologies to go into areas that had, perhaps less rich concentrations of oil, or perhaps, less easily accessible concentrations of it, and not only give you access to them, but actually match the productivity, match the productivity of the people who were essentially gathering that.

In other words, it's a principle that operates in a closed system, as well as when you're looking at what really are revolutionary leaps from, say, one mode of reproduction to the next. That's the question that's being asked.

LaRouche: Well, I think there is no such thing, as really, an argument for isolated systems.

See, I'll give an example, say, in our work on the NAWAPA design: Now, we went through the figures. What we did, is, we were very careful last Summer, in saying nothing until we had done a lot of work on—and I just put the lid on everything: "Nobody talks until we get this thing figured out right." And we did that, and that was very good. Because if we had gone out and tried to push NAWAPA, without having done the intermediate work of working the whole thing through as a complete system; we didn't complete everything that should be completed, but we worked with a complete system.

Now, one of the more interesting things was, that we were calculating the amount of water, which would be generated through the collecting system, through this whole NAWAPA system, which is a *unified* system. It goes from the Arctic into Mexico, and we could extend it down into Mexico, through a mountain connection; you could go all way down, to the south of Mexico.

We determined that if you did this, you would in-



Creative Commons/hugerocks

Development of a territory demands the development of the entire territory, and with each step forward, your responsibility, and the territory you have to improve, gets bigger, LaRouche said. Thus, while the Chinese took on a massive responsibility with building the Three Gorges Dam (shown here), that dam will be a midget compared to the biospheric engineering which NAWAPA will set into motion.

crease the rainfall pattern across the United States by 2.7 times. That's 2.7 times that amount.

Now, one of our big problems in the United States is the fact we have desiccated areas. We have drawn down the aquifers in the Central Plains, for example. We're creating desert conditions in the United States, *by not putting NAWAPA into place!* Because, we can manage large amounts of water. You know, water takes a detour before going to the ocean. That's no tragedy: It's going to get to the ocean anyway, sooner or later. So you give it a detour. And by managing water, like the Transaqua project for Africa, by managing water, we can create a different rainfall pattern. Not just putting water down into a well, but developing a rainfall pattern.

And we can create it across the United States, because the evaporation goes up. It goes up, becomes a cloud form, descends in the form of rain. And if you keep that cycle going, you do it. In Egypt, for example, another case: There's enough water in that area, to make big improvements in that. We knew all about this back in 1982, when the project was being calculated. There's enough water in the region, to make a great improvement in the conditions of life.

So, I think that the idea of trying to say, let's take a small piece, stereotype it, and assume by simply extending that small piece to a larger piece, that you can judge how this thing is going to work. Actually, it's the macro-system that defines the micro-system. That's the characteristic of this sort of thing: instead of "infrastructure," talking about "platforms." Charlemagne's change in the area of France and Germany, for example; what became France and Germany, a simple case.

It's the operation on a very large area, where you create a standard technology, a standard level of performance, and that's your foundation. And you don't want inferior systems! Because the inferior system draws down your whole effort. You don't want an area that's not the most advanced system. In other words, you don't want to walk—you know, take a railway system, and go so far by rail, and then walk the rest of the distance. That is not a very good idea! What you want is a system which envelops a territory, as a unit, and think in terms of the *territory as a unit*.

If you're going to talk about the galaxy, our galaxy, you don't talk about part of the galaxy. The galaxy functions as a unit. It has things in it, but it functions as a unit. The Solar System is a unit. The way we exist within the Solar System, in our vicinity, Earth's vicinity, is a unit. You can't parcel this out by the usual algebraic formula: Take a formula, say, is the formula sound? Well, it's a question of what the scale is. It's not independent of scale; and technology is not independent of scale.

That's the real answer to this question. You have to get the most advanced technology applied on—we're looking for a planetary basis.

All right, what are going to be doing for several—take the case of Russia's contribution: The Siberia factor. Now, the development of NAWAPA, and the building of the NAWAPA railway/tunnel system as part of that, means that the rail line, which is projected from the Trans-Siberian line up to that point, it now becomes functional. The opening up of that territory demands a development of the entire territory with the mineral production in mind. So you have to build a *Siberian system*. Some of this area is pretty tough to deal with, but I think our old friends from the Vernadsky Institute might be able to help on that thing a bit—they certainly indicated that, the last time I talked to them, that they understood this business.

So you have to take a whole system, and *define a system*. And you want to go from one system, like one

platform, to a higher platform. So your basic conception of economy has to be going from platform, to higher platform, to higher platform. And as you get higher, you get bigger, because you go from managing a national territory—you find yourselves dealing with a Eurasian territory. When you get a Eurasian territory, you're including Africa! When you develop the United States, you're now implicitly including South America as well as that.

So that, the more you develop, the bigger your responsibility, the bigger the territory that you have to improve. Because what you're really doing, is doing what the Earth did with life: Little things are evolving, little forms of life, as Cody said, little forms of life. And the little forms of life are doing what? They're changing the big form, of Earth! The little forms of life, are creating water, producing water. The little forms of life are producing, beyond water, they're producing things that depend on water.

Then you get enough water, the water goes up, and forms a blanket which the solar radiation turns into an ozone layer. Now the ozone layer now exists, it protects you—now you could have bigger things, not just unicellular kinds of things. You can actually get human beings, eventually, out of this process. And from animal life, you go up, to higher human beings; you get to a completely higher order of things.

Now, you have to change the definition of the Earth, from an animal-inhabited Earth, to a human-inhabited Earth. And you change everything to fit *human-inhabited Earth*. You include the plant life and the animal life on Earth as part of the process, but you *define* it by man! Man becomes the new platform, because man is creative, and willfully creative. No animal is. Animals are creative, but they don't know what they're doing, they just do it.

And that's the way, I think, we have to look at this. You have to look at the total environment. We are not modest. The universe is our object. We are not anywhere near that, but we have to think in those terms. We don't stop until we reach the universe.

The Importance of Riemann

Shields: It seems in this, that the Riemann becomes important, really important. Because there's a topological consideration, in the right way, that any action we actually take as a real action, should be changing the metric that you're operating in. It's not a question of operating within the metric.

I mean, to give you an example: This gets back to the question of the relativity of entropy, again. We're discussing right now, all the infrastructure development around NAWAPA, and we're amplifying some of the regional plans, with just massive nuclear power development. And then, the connections, also, across the Bering Strait, the new mining, etc.

When you do that, suddenly, relativistically, all the earlier discussions of hydropower, the actual value—they shift to becoming, in some cases, a net cost. That if you were to sit back and invest in hydropower that, in an earlier period, would have been beneficial, its value now goes negative, when you take into account everything physical that's involved in it, as an investment, both manpower, other physical resources, etc. And you compare that to, again, what you're not doing by doing that, which is the investment in the higher platform of nuclear, etc.

In one sweep, you've taken all of your little activities that would have operated in your earlier closed system, and you've just compressed them into something that's almost infinitesimally small, compared to what it was before.

From a Riemannian standpoint, you're acting on the actual metric of the whole manifold. You're changing what your definitions are that you use for measurement. And that should be the focus of any activity, any economic activity.

The only way to do that, to do that correctly, is to invest in the frontiers. You've got to always be pushing for what doesn't yet exist.

LaRouche: The Riemannian aspect, actually, we should emphasize, because the higher concept of what an Abelian function means, as defined by Riemann: That each of these so-called platform areas corresponds to a kind of Abelian function. You're outside a fixed system. You're no longer in a fixed system, you're in an anti-entropic system. And each of these qualities, of life



The great German mathematician Bernhard Riemann provides the crucial conceptions for defining the metric by which technological advance can be measured, asserted Shields. LaRouche added that Riemann made an invaluable contribution by developing a higher concept of Abelian functions, which are needed to understand the movement from one platform of development, to the next.

and so forth, up to human beings, defines a completely different Abelian function. And so this development of the concept of Abelian functions, as done, for example, by Riemann, principally, you'll find this reflected in the work of Vernadsky.

Vernadsky is the one who applied this concept of Abelian functions to the distinction between the nonliving processes and the living processes in general, and the Noosphere. Each of these is a different class of Abelian function! They are *nested Abelian functions*. And this is implicit in Riemann, and this is where the Riemannian aspect of Vernadsky's work becomes clearest, at that point.

Potential Relative Population Density

Freeman: Lyn, another question here. The speaker asks, "Look, I think that, between the work that we've done, and certainly some of what we've gone through today, we have, I think, an advanced understanding that, for any measurable progress to occur, that you do need—that even if we are to exist at our present level of existence, let alone, to move forward as a society, as a culture, that it does demand continued advances in what we're referring to as relative energy-flux density, both per capita and per square kilometer. And I think that there's a range of understanding of this, among some of our participants.

"But I think that there's an element that's being left out, that I'd like you to address, because I think that when you're talking about the progress of a society, or the progress of a system, that one yardstick, or one measurement is absolutely, the question of increases in relative energy-flux density, but you also—that has to be combined, at least to my mind—with an increase in what we've referred to in the past, as potential relative population density. Because it's the precondition, not only for establishing some durable state of progress of the human condition on Earth, or whatever system you're looking at. But from the standpoint of what

we've discussed, it's actually the increase in that potential relative population density, that not only improves the condition of mankind in this society, but which would, at least potentially, provide a form of progress or improvement in the universe as a whole.

"Because, really, when we talk about platforms, I mean, Lyn, what really changes everything—I listened several times to the presentation on the 'Science of Glass-Steagall,'³ and clearly, what changes everything, is the introduction of the human platform, because human beings represent—yes, we're a part of the Noösphere, but we're a very unique element of it.

"And I'd like you to address that, because I don't see how any nation, or any region, can actually measure its progress, unless it's also experiencing an increase in happy population. This idea that somehow a reduction in population could represent progress, to me, seems to be completely antithetical to the idea of progress as we define it."

LaRouche: Well, the first answer I think is, go back to what I just referred to, Abelian functions, as Riemannian Abelian functions, and recognize the Noösphere is defined as a higher form of Abelian functions.

Now, this comes up in Vernadsky's work and related work, constantly. When you go from a nonliving system to a living system, your chemistry, your physics is different, hmm? When you go from a system which is a living system, merely a living system, to a human system, a cognitive system, again, your function changes. So you can not use the *formulas*.

But this concept of Abelian functions, if you look at it, define it in terms of Vernadsky's work, and the work of his associates, as a Riemannian concept of Abelian functions, extended to the idea, the *voluntary* aspect of human creative powers, that changes everything.

I mean, the idea of productivity, for example: No animal can consciously invent a discovery. They may stumble into one, and they often do; you find that when you raise puppies, for example. They will stumble into you, and they will pick up something they didn't have as a dog before, but they'll pick it up from you—but they're still dogs. But they're dogs being acted upon by a higher function, human beings. And you find, if you raise dogs, or experience dogs, you know this. That's the difference between a dog that's raised by a dog, and a dog that's raised by a human being: It's a different function, different characteristics.

3. Ibid.

So, we have to think in these terms. We have to think in terms, really a Riemannian sense, and I think Riemann's general concept, as appreciated by people like Einstein and others, but particularly by Vernadsky—Vernadsky's work in the Noösphere dimension, applied to what we know as the problems of economy, that tells us—that's, I think, where we are. I think it's on that level of science, that we presently know what we're doing. There obviously will be higher levels we will come to in some form later on, but this is what we have now, this idea of the Riemannian-Vernadsky conception as a kind of Abelian function. And that's the framework we're working in, and that covers about everything we know, now that we're competent to deal with.

And I think we should be satisfied with that, in one sense, but also, very restive about being confined to that. In other words, you like what you're doing, but you wish it were better, and you don't quit trying.

From FDR to the Present

Freeman: Okay. Lyn, the next questioner says, "Lyn, I asked you a question at the last webcast, and I think either I stated my question poorly, or you misunderstood. But what I talked about that morning, was the whole question of unemployment, jobs, etc., and the fact that all estimates of jobs that were supposed to be created, even estimates that we had come up with, were wrong—that the jobs weren't created.

"Now, my actual point, then, which I wanted you to talk about, because it helped something else we were involved in, is that the reason why no net jobs were created, is because our normal practice, as Americans, of investing in those advances in productivity, did not take place. That, instead, what occurred—there was investment, but it was investment in things that, you know, brought us the iPhone, and 3G networks, and now 4G networks, etc., all of which are useful, you know, to some degree, but which do very little to actually effect the productive increases in an economic system.

"And the reason why I brought it up, is because it was coupled with a study which we've done, which has caused tremendous controversy, but it has been based on this question of increases in energy-flux density, and such. But, as you know, we have argued, that if you look at things from the standpoint of energy-flux density, and our ability to realize that into net productive output, that essentially, there has been *no net increase* in the long-term productivity of our labor force, since the 1960s!



Library of Congress

The insight President Franklin Roosevelt had into how to reverse the U.S. collapse, is demonstrated in the fact that the first major construction project he launched was the Tennessee Valley Authority—which eventually led us to the development of nuclear power. Today we have had a destruction of that technological potential, per British policy. Here, construction at TVA’s Douglas Dam, Sevier County, Tenn., in June 1942.

“And that, in fact, what we have experienced, more recently, is an accelerating decline in long-term productivity, as we’ve experienced an accelerating decline in basic economic infrastructure, in physical infrastructure. And that the kinds of investments in technologies, that are repeatedly pointed to, they may be investments, and it may be technology, but it’s not technology that affects this.

“And I’d like you to comment on it, because it’s a critical question for us, as we’re tasked with shaping—let’s assume we get Glass-Steagall, the question is fine, we have Glass-Steagall, now where do we go? NAWAPA is an obvious example, but we have to be able to defend NAWAPA from this standpoint. And that’s what I’d like you to talk about.”

LaRouche: Well, you could discuss the matter from a longer-term view, but take a more restricted, more recent interim: Take what happened from the inauguration of Franklin Roosevelt in 1933, and up to the present, and you get some very interesting ups and downs. You look at what Roosevelt did: We were actually *in decline*, net decline in the 1920s, as an economy; and the collapse occurred the way it occurred, because of

this. Roosevelt understood.

Look, what was Roosevelt’s first significant project of construction: the Tennessee Valley Authority. Now, what did the Tennessee Valley Authority do for us, among other things? It gave us nuclear power. We became a nuclear power, through the Tennessee Valley Authority—Oak Ridge. That’s typical!

Now, what happened when the war ended, and Roosevelt was dead? Truman tore down a great mass of our productive potential, as a favor to the British! Our post-war plans, under Roosevelt, had been for the freeing, as Roosevelt said clearly to Churchill—and Churchill hated every word of it!—that: “We are not going to have colonies after this war’s over, Winston! When this war is finished, we’re going to rebuild this world, we’re going to free these nations. They’re not going to be

colonies any more! We’re going to help them develop!”

Now, Roosevelt was not simply whispering pretty words. He meant it! And I was in India in the immediate post-war period, coming back from Burma, and I was involved in dealing with what became the great Calcutta riots, which were a social explosion, caused by two British machine-gunners at the head of Dharmatala Street and Chowringhee, firing directly, with heavy machinegun fire, into an advancing crowd of demonstrators, coming down the street. And that went on, afterward, the rioting went on for about three to four days, until the people who had been rioting just dropped out of exhaustion. They were shouting, in the same crowd, “*Jai Hind!*” and “*Pakistan Zindabad!*”, in the same crowd! Where a year later, they were going to kill each other!

And what we did, we had this tremendous capability coming out of war production! Roosevelt’s intention was, we would use this capability, to build industries, and *free these countries from colonialism*. Roosevelt’s dead; Truman’s a pig! He was a fascist, actually. He comes from Missouri, but he’s a Wall

Street fascist. He was on the fascist side, at the same time as George Bush's grandfather, Prescott Bush, who was the guy who *funded* putting Hitler into power, *personally*!

So these bastards came back into power. And we *destroyed* much of the potential we had, to convert war potential into *economic potential*, which was Roosevelt's intention.

And we destroyed much of our own population. We brainwashed and terrified our own citizens, drove them crazy, produced a generation of nuts, opportunist nuts, who were crazy. And people were terrified and intimidated, by the thing that became called "McCarthyism." It wasn't McCarthyism, it was Trumanism.

Then, Kennedy came along, and Kennedy, backed by Eleanor Roosevelt, sort of his sponsor—Kennedy moved! He prevented the shutting down of the steel industry! He did other things of that type. He was building up the machine-tool capability of the United States, through a special law, designed to promote that. He collaborated with Douglas MacArthur, to avoid a war in Indo-China, which was totally unnecessary and wrong. That destroyed us! Ten years of that war destroyed us; it turned some of our young people into madmen, degenerates. And the degenerates got promoted. The people who were not degenerates got less promoted. That's how degeneracy came into vogue in the United States, in that way.

So, if you look then, at the achievement under Kennedy, of the space program: We were developing. For 10 cents worth of investment in the space program, we were producing one dollar's worth of technology. And *what was done* during the 1970s? Destroyed.

And you had a virtual fascist regime.

Now, fascist in this term, is not the way Mussolini used the term fascist. *Fasces* was the name of a bundle of reeds that the Roman soldiers carried before them, marching down the Roman roads. But the term fascism was used by Mussolini, and it was picked up—it was actually a Napoleonic idea. Napoleon Bonaparte was the one who invented what we call "fascism" today, institutionalized it.

So, we had a destruction of our technological potential, in several layers of this process. We destroyed the potential: Look, take the case of the O-ring crisis, when we lost some astronauts, because some idiot put in a fake, untested O-ring, and the whole bunch died! Look what happened to the space program: It was taken down, piece by piece! We had tremendous technology;

we *lost* it!

What do we have among the young people today, people under 25? What are they? What kind of work are they qualified for? Look at what happened in Tucson: Tucson—the event in Tucson is typical of what we're breeding today, as a result of the policies of the past ten years, of two Bush terms, and an Obama two years. We are destroying our own people! They're out to destroy our technology, the British are destroying our technology! Technology is being destroyed in Europe!

We're going into a *dark age*! The reason we're on the verge of a dark age, because of finances, is because we're on the edge of a dark age in terms of our physical economy. We're not producing enough food! We don't have enough food now, to feed the population of this planet! Why? Because it's a matter of policy—British policy, chiefly. British imperial policy. And a U.S. policy to match: Every time I hear the name Monsanto, I say, "Kill those guys." Because they're killing us! They didn't invent seeds! They didn't invent life! They have no right to patent life! And get a monopoly on life—*they didn't invent life!* They have no right to patent it, and to use it as a weapon against the farmer. The farmer gets one seed of Monsanto traced in his crop—he didn't plant that seed, but if it spread among his plot, somebody comes along and takes his crop away, takes his farm away, breaks him.

We put up with this crap!

So we've been destroyed.

Obama Must Go!

And therefore, the problem is not of this accidental nature, somebody overlooked something. We have been in a process, where the British Empire is out, has been out to destroy us, since Winston Churchill took over Truman, at the end of the war. We have been systematically destroyed, by them. And the agent that does it, is called Wall Street. The Wall Street, the Boston bankers, and the Wall Street crowd, and their applications in various parts of the country. They have systematically destroyed us.

And in 1971, the cancellation of the fixed-exchange-rate system: That was the beginning of our landslide into destruction. I know, I was involved—I was the inventor of what became known as the SDI, from 1977 on; I started it as a project. I had leading military figures of France, Germany, Italy, and other countries, and the United States, leading circles of the intelligence community in the United States, they were all assembled

around my SDI project. Or, what Reagan named the SDI. Reagan adopted it, on the advice of his National Security Council, with whom I was working. If the thing had gone through, we would have turned the clock around; we would have saved civilization. We lost it.

And from that point on, everything got worse! George H.W. Bush, the whining, stupid lout! You talk about the time he dived out of a plane, and left the crew behind, as pilot. That kind of thing—no good, no good at all. But his father was a fascist. What do you expect? And his son is no damned good, either.

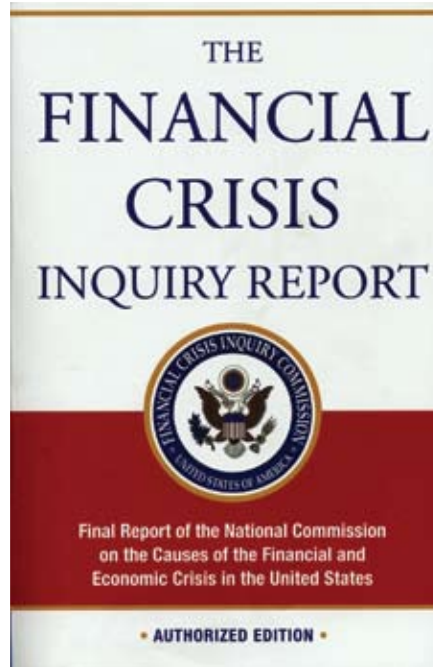
We've got a brainless mental case, very serious mental case, as President now. No wonder we have problems!

And my view is, the only way you're going to solve this, you've got to get this President out of there. He's clinically insane. He meets the criteria, under the 25th Amendment, Section 4: He fits the criteria to be thrown out of office. And he's acting like a dictator now. He's got no brains. Got a mouth; he's nasty; has terrible people advising him. But that's the problem.

So, that's where our problem lies. The problem lies, that if you don't maintain and develop a *system* of economy, which creates the foundation for progress, and if you don't maintain the intellectual development, and moral development of our citizens, then you're going to get this kind of effect!

We're going into a dark age. What the name for this is—and Summers, Larry Summers, is typical of this—it's called, "creative destruction." It's generally associated with the name of Schumpeter. The policy comes from Friedrich Nietzsche, and comes through Werner Sombart, who was not a Nazi as such, but he was a leading economist under the Hitler regime.

So we have a *fascist policy*, literally fascist policy, in the full meaning of the term, which has taken over in



The recently released FCIC report, produced under the leadership of Phil Angelides (below), provides a significant boost to the drive for Glass-Steagall, the *sine qua non* for implementing what LaRouche called the "star project" for getting out of the current crisis, NAWAPA.



Creative Commons/Dan Ancona

parts of Europe, and has destroyed much of us inside the United States.

My response to this, is that we have to pick star goals, which have universal implications: NAWAPA, for me, is a star goal for the United States. Simply take the Glass-Steagall Act, reenact it, which the British forbid us to do—well, the Devil with them!—*let's do it!* If we do that, the minute we enact the Glass-Steagall law again, the minute we do that, *we can save the people of our states*. You can't do it, as long as this bum is in the Presidency, and you can't do it without Glass-Steagall.

You want to save the United States, and the people in it? You get Glass-Steagall in there. No questions asked, no objections! Glass-Steagall is the thing that will save the United States. *Not* putting Glass-Steagall into operation, will *kill* the United States! And if you're not for Glass-Steagall, you're no damned patriot, because you're not willing to do the one thing the nation needs; you're standing in the way, of a measure which will save the nation.

Once we get the money available, a credit system,

an American credit system going, we can immediately *bail out the states*, with *real* things, not fake debt investments. Once we can stabilize the states, get the states back into functioning before the Obama plague hit them, get that going, then we go ahead with a project like the NAWAPA project. And we extend the philosophy of going with the NAWAPA project to our cooperation with nations around the world, on the idea of building up a credit system, which is a fixed-exchange-rate credit system of the type that Roosevelt intended, and put that together.

We can save this planet, and we can start—I don't know if I'll be around that long—but we can start to rebuild it, and rebuild the nations, on a system of sovereign nation-states, which are in partnership around a fixed-exchange-rate system, with *common goals*, and the common goals are, largely, power, water, and food. Power, water, and food. NAWAPA is part of that, and NAWAPA is a project which takes us into space-science, as you know.

That's where we should go! These are modest, really, modest objectives, and it's better that they be modest. A few things, which are of major importance, and major benefit. Don't worry about the rest. If you get these three things done, then you have secured civilization. If you haven't done this, you don't have civilization.

Freeman: Well, Lyn, as we are wrapping up here, one of the leaders of our American economists has asked that the following be conveyed to you, "Look, the fact of the matter, is that we've been, in these past months, extremely focussed on understanding how we got into this mess, and what immediate steps we have to take to get out of it. And to that end, many of us were recruited to help out, in pulling together the FCIC [Financial Crisis Inquiry Commission] Report. And I think we did a good job with that. Certainly, we could not have done the job we did, had we not been informed by this ongoing dialogue that we've had with you. I mean, we understood certain things, but there's no question that our ongoing discussion really—it didn't just enrich—I would go so far as to say it revolutionized our understanding of how we got into this mess.

"Now, I think, Lyn, you also know that as much as we were able to influence what the commission issued, the commission also had something of a limited mandate. They did not have the mandate to come up with recommendations in a framework for resolving the crisis. But, with the issuance of this report, I'm much

more optimistic than I was a couple of months ago, about the ability to actually pass Glass-Steagall. And I think everybody understands that if you actually restore Glass-Steagall, it gives us the ability to pump out such an incredible amount of credit, to save the states, to start reconstruction, and under those circumstances, NAWAPA becomes a realizable project.

"But, I can't help but feel, especially after our discussion today, that, really, it's not sufficient, because we really have to start revolutionizing everything about the way we think about economic planning, and the way we think about man's relationship to the universe as a whole, not just within the system of autonomy in the U.S.

"We knew how to do the job; we knew exactly what was necessary to get out an accurate and truthful picture with the FCIC Report, and I think that was done and done well. But, I'm not so sure we know how to do this!

"But, for now, I think what we will do, unless you have other suggestions for us, is, we're going to concentrate on mastering some of the ideas that have been put on the table here today, and obviously, NAWAPA is the practical expression of it. But it seems to me, we have to be far more competent than we are right now, in figuring out where we're going to go, in the wake of this collapse, which I think everybody agrees is—I don't even think saying it's inevitable is the right term; I think it's already well underway, and now it's just a question of what we do to replace it.

"But I just wanted to say that, and see if you had any words of advice. We are obviously going to continue this discussion. And on behalf of everybody here, both we Americans and our international guests, I thank you, and I thank Sky, because his contribution was invaluable in helping us get a sharper understanding."

Well, I think that's it for us, Lyn. If you have further advice, further recommendations, this is the time to make them. Everybody here has been intellectually provoked, but look quite excited and happy.

LaRouche: Okay, fine. Have fun.

Freeman: If you have anything to say—

LaRouche: My best wishes to all concerned.

Freeman: Okay! Okay, then.

LaRouche: A bientôt!

Freeman: Thank you, very much.