

# NAWAPA: The Next Evolutionary Step for the Human Species

*LaRouche PAC's Alicia Cerretani interviewed three members of the "Basement Team," Merv Fansler, Cody Jones, and Sky Shields, on their work on NAWAPA, on Aug. 5, 2010. The video of the discussion is available at [www.larouchepac.com/node/15408](http://www.larouchepac.com/node/15408).*

**Alicia Cerretani:** What we would like to do today, is elaborate on the nature of the NAWAPA project, to clarify exactly what we are launching, and what the future of the United States is going to be with this project—the future of the United States, the future of this planet, the future of the Solar System, and beyond.

Now, what LaRouche outlined yesterday in the LPACTV Weekly Report [<http://www.larouchepac.com/node/15399>], is that there are three things we have got to do immediately: First, Obama is fired. He's gone, he's got to go before November, as soon as tomorrow.

The second thing is, reinstate the Glass-Steagall precedent, exactly the way Franklin Roosevelt did. No funny stuff, clear up the banking system, clean it out.

And the third thing, is that, after having done those two things, we will be in a position to launch NAWAPA, the North American Water and Power Alliance.

And the point of NAWAPA, which if you have been on the website, you have seen it as a project, you see the area that it covers, but there is a much more profound point, that we are going to elaborate here, that needs to take hold in the population to push it through.

Because, the fact of the matter is, that since Frank-



*Members of the Basement Team of scientific explorers (left to right), Cody Jones, Sky Shields, and Merv Fansler, joined LPAC-TV's Alicia Cerretani, for a roundtable discussion of the nature of the NAWAPA, and its potential to revive the global economy.*

lin Roosevelt died in 1945, yes, we have built things; yes, we had a space program; yes, around the world there have been engineering feats that have been accomplished. But overall, we have suffered a net loss, we have been operating at a net loss. So, all of the infrastructure projects that have been carried out, all of the engineering, all of the scientific, all of the government and private spending on these infrastructure projects, are missing something. They are lacking something, and we are in a great crisis because of it.

So, we brought in our Basement Team to figure out exactly what is missing, and how to reverse a decades-long trend of collapse, not only because we have to, but because we can.

So, what I want to start with, is, over the last couple of months, you, in the Basement, and some satellite groups around the country, have made a significant breakthrough on a key part of LaRouche's economics,

and this is what was called the “Tensor Project.” And I’m going to let you elaborate what exactly the Tensor Project is, and then, how NAWAPA, as a program, is a complement to that, grows out of that breakthrough. So, if you could say just a couple things about how that works.

### **A Communicable Idea of Economic Science**

**Shields:** Well, the core of it is, it really is getting to an idea, a communicable idea of economic science. What does it really take to revive an economy? Right now, you get all of this discussion of “job creation,” etc., as if that were the problem, as if by creating “jobs,” you solve anything. It’s like taking a person who damaged his nervous system and can no longer walk, and saying, “Okay, the solution is, get him to walk.” And they kind of roll him down stairs, and roll him up stairs, to see if you can create a capability to walk in him: That is not going to solve the problem. It may give the visual effect, the physical effect, of going up and down the stairs, but it’s not solving the problem you wanted to address in the long term, and it’s going to be pretty bad for the person.

Right now, we are in a similar situation, with the idea that you’re going to try to address something like “jobs,” per se, without looking at what an actual economy is, and trying to bring that to life. You are going to not only not solve the problem, but you’re going to do more damage in the long run to the economy’s ability to survive.

So, what we have done, is take this case study here, take what really does represent the next step, the next economic, the next evolutionary step for the human species, which is NAWAPA: which is a project to take a large swath of the Biosphere that has been defective, that has been reduced to a desert, and greening this. Taking everything that was functional about the Biosphere, ramping it up a notch, and bringing it to areas where it couldn’t reach previously, on its own, which is what Vernadsky described as being the real role, the real function of the Noösphere. Human activity, our role, is to take the Biosphere to places where it couldn’t go otherwise. And to begin with the deserts, and then, ultimately on the Moon, to Mars, interplanetary space, to bring life where life couldn’t exist before.

**Cerretani:** Yes, it’s important that this is not a jobs program. People will get jobs, there will be employ-

ment. And one of the things that we were talking about earlier today—and LaRouche brought this up in the Weekly Report—is that you have an incredible number of unemployed people, here in the United States, all around the country, in places like Washington State or California, where you had Roosevelt’s Four Corners projects, or some of his New Deal projects, and an outgrowth of that, were places like Boeing, or Luna Manufacturing. But after Roosevelt died, and the economy, globally, went toward a monetarist policy, these places went down with them. I mean, the factories might still exist, but we are at a point right now, where these people don’t have jobs. You have some skilled workers, you have engineers, you have scientists, who are all just sort of holding out. And they’re being told that there’s a “recovery,” by this Administration—no one believes it, but they’re still saying it.

And, what I would like to know—maybe, Cody, you could go through some of this—is, what is the working potential we have out there?

**Jones:** Well, the initial reports that we have gotten, are that, just in the last five or ten years, you have had literally hundreds of thousands of skilled engineers and people who are machinists, people who produce the machines that go into electrical equipment, manufacturing equipment, who have lost their jobs, have become unemployed—many of them on the West Coast, people who would be immediately brought into this project. So the idea is that, this layer represents sort of the highest layer, intellectual and productive, capable layer, in your population, that those are the people you want to address with this project. They are going to get what you mean; they are going to understand, to some extent, the scope of it; they are going to understand what is involved in it, and they will be able to grab onto the idea, and they will know where it’s going, they will recognize the intention in it.

They, then, become the base in your population, which is capable of organizing the rest of the mass of millions of people, who are unemployed, or underemployed, who will look to them as a trustworthy leadership element in the population, to say, “Okay, this guy, he has skills, he knows what he’s talking about, he gets what’s going on. He’s my neighbor, he’s the guy I see in church” or what-have-you, “I’ll trust what he says. If he says this is good, okay, I’ll take direction from him.”

**Cerretani:** Right, he's not just putting me on, like the Obama Administration.

**Jones:** Right. Exactly. And that is the grouping that will become the organic leadership in this, as we have discussed, this mass-strike type of phenomenon, that we are experiencing.

## A Continental Water System

**Cerretani:** Then, Merv, just so people know—because one interesting thing with NAWAPA is, you're talking about a continent. You are not just talking about the American people. We are talking about Canada and Mexico. And what's interesting, is an interesting thought-exercise, just to look at the continent as the continent, and not just three different countries, different cultural development, etc. That's worth it, but, what does it look like as a continent?

**Fansler:** Well, I think the NAWAPA itself, the fact that it did not get done, is almost paradigmatic—it expresses how we should have developed, but we didn't. And why we're facing the collapse we're in today. Because, the NAWAPA originally—it had come up, because there was no way to deal with local—say, regional, water problems, just within a specific river basin territory. And a lot of this was coming up, particularly in California, where they were taking water from one part of the same river basin, and then moving it down, moving it to an area that needed more water. But a lot of times, they would end up just draining out the source regions. And you would be getting rid of water in one place, to fulfill it in another place.

And what the Ralph M. Parsons Company did, which developed NAWAPA and engineered the concept, was, they realized there was no way to solve regional water shortages, especially when they started looking at the projections of what we were going to need, as we continued to develop industries, as we continued to increase our population. They said, well, there's no way to solve this in a localized region. The only way that we can think about it, is if we actually think about an entire continental water system, and a global water system, really.

And so, they found that there was a way to actually manage the entire continent's water system in a way that wasn't just stealing water or something, from one place to put it in another, but was actually organizing the flow of water, organizing the pathways through which the water cycles move. And, what they recog-

nized, was that there is this huge region in the northwest of the continent, which is Alaska, the Yukon Territory [Canada], down through British Columbia, that had vast amounts of rainfall, rainfall which represented large percentages of all rainfall on the continent. And there were also, that most of this rainfall is going off into the Pacific Ocean, or going up into the Arctic Ocean. All of it is just basically becoming run-off. It's

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not getting pulled into any of the local processes there; it's not becoming part of a plant, or anything like that; it's just going from rain to running off into the ocean.

So, they looked at the territory, and said, well, there are actually very natural contours, very natural peaks of elevation and boundary lines, which would allow us, if we put dams in very specific places, and diverted the water, to actually reorganize all of this water flow to spread out through the entire continent of the United States—or, of North America, including all of Canada, down into the United States, and then, into Mexico. It would follow the Rocky Mountains: In the Rocky Mountains, there are trenches that are separating; there are huge valleys in which you could divert the water flow down, and begin to bring it into the United States; and then, from there, it could be re-diverted into both solving the Western water problems—in the Far West, the coastal problems there—and also in the central part of the country, which is completely undeveloped. And which, as Sky said, are arid regions. These are places that are deserts, and there's nothing being done in this area. It is very inefficient, the Biosphere is very inefficient, at that point.

So, by bringing water into that and by redirecting the flows, you are actually going to transform how the continent is interacting, not just with its own water

flows, but how the continent is interacting with the Biosphere as a whole.

**Cerretani:** Right. So, not only do we have an unemployment problem with our own people, but we have unemployment in the physics of water, and we have unemployed solar radiation and cosmic radiation. It's much bigger! I knew the Obama Administration was lying about this! I knew it. They are totally wrong.

And that is a very compelling part of a statement you guys have just authored, and drafted [<http://www.larouchepac.com/infrastructure>]. But this is important, because this is where it becomes not just a jobs issue: You are talking about reclaiming the American idea of when you are thinking two to three generations into future. One, because the biological processes that you're talking about take that long. But two, you get to think about your grandchildren, and other people's grandchildren!

So, how would this work? What are the implications of bringing all of this water into the desert, and what actually is at play? Any of you can answer it.

## The Biogenic Migration of Atoms

**Shields:** It's significant to take a look at it. The first thing that people want to get a real, living sense of is—it's an idea that Vladimir Vernadsky called the "biogenic migration of atoms." We have mentioned it in recent video productions on the website, and we will be repeating it over and over again. Because it is a really important concept for people to get, about the role the Biosphere plays and the role of an organism, a living organism, life, and then cognition.

If you take a look, you cannot treat a living organism as an object, as a thing. It's more appropriate to describe a living organism as a flow, where you have got a constant flow. At first approximation, you look at it, you've got a constant flow in, and a constant flow out. But, then, it makes a point, it's not like a car; it's not as though you're bringing gasoline in, and exhaust out. It would only be true, if, in the course of bringing gasoline into the car, the gasoline became car, and then parts of car became exhaust. Because that is what the organism does: What's being consumed, is that—"you are what you eat." It's becoming the organism. What's passing out, is what was the organism. The organism is a singularity in a constant flow—there is no object, there's no "thing" you can refer to as "the organism."

What has the substance, is this sort of process, personified.

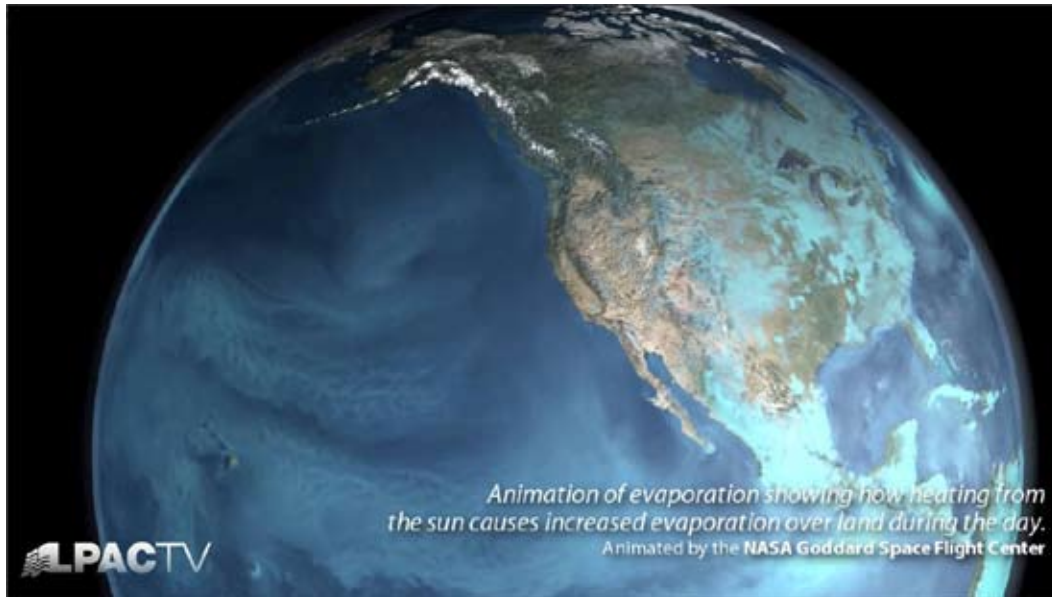
But now, if you zoom out, and you look at what all these living processes are doing, in the course of pulling in material and pumping out material, transforming it, as it takes part in the organism, you are changing its state from non-living to living, and what comes out the other side are these, what we call "biotic fossils," these biospheric organic fossil materials.

But now, if you look at that flow that is being pumped through the organism, you realize that that pump is acting to pump a whole flow of material throughout the entire Biosphere. You are looking at the generation, the entire development of Earth's oceans, the development of Earth's atmosphere—all this is being produced by this flow through these living organisms. And as you look at how it operates, you realize that these things—this atmosphere, the oceans, the material on land—that this is a constantly flowing, evolving, changing system, because it's being fueled by life and living processes.

And you can follow certain key—they're often described as cycles, the "carbon cycle": If you look at how carbon dioxide is brought in by plants, it's fixed through photosynthesis. And there are these complex carbohydrates, more complex organic molecules, higher organisms are consuming these, making these part of their body; these, through a process of respiration, are again secreted as either methane, carbon dioxide, or waste products, and back into the atmosphere, to be cycled again. You start seeing, on a global scale, this incredible cycling of material and transformation of material, building, changing the surface of the planet, changing the geography of the planet.

This, you also see with water, and what they often call the "water cycle": Where, first, you can see a process of evaporation at the oceans, but also, wherever there is plant and animal life, you can see where you have a steady stream of water being released as water vapor. That makes its way up into the atmosphere, becomes clouds, becomes the atmospheric water, which then moves and rains down preferentially in certain places on the Earth, landing on soils, landing in rivers, pumping out, taking part again in living processes, to be either immediately transpired out of living processes, or to return to the ocean. And you have this constant flow of material that is moving through the whole Biosphere this whole way, in this case, water.





*This animation of evaporation, provided by the NASA Goddard Space Flight Center, was shown during the LPAC-TV roundtable discussion.*

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Now, the question that we are talking about, is: How do you harness that process? How do you harness that cycle, and then direct it so that it's more efficient? And it's one of the big frauds that comes up when talking about NAWAPA, but talking about water in general, people act as though there are these stores of water that we're running down, that you're trying to find somewhere and suck out the water. When we are behaving badly, we do that. When we stick, as Merv was saying, to a single river basin, you will loot the area, because you are not talking about engineering the cycle; you are just trying to grab what's there.

But if you take this entire process, and we say we are going to redirect it, as we're talking about with NAWAPA, you are going to take one section of the cycle, which is a relatively long, large cycle of just ocean to atmosphere, onto the ground in Alaska, and back into the ocean. Instead, you are going to engineer a whole set of other things into that cycle. You are going to take that cycle and run it down through the whole desert area, that the Biosphere wants it to be in, would like to get it in, but hasn't quite been able to do it on its own. You are going to run it through that area, and you are going to send it through, and you are going to increase its useful life, before it is cycled back through, up to Alaska again, to run back down and begin the process, again.

So that's the kind of transformation we are talking

about. This is what you mean, when you say you're deploying NAWAPA as a project.

### One Dynamic Process

**Jones:** I think an important add-on to this, which is implied in everything you're saying—I think one of the real fundamental contributions that Vernadsky made to science, is to recognize that these three phase-spaces, that exist on Earth, abiotic, biotic, noëtic, are not, in fact, isolated to processes on the Earth, but have a very intimate and principled relationship to the Sun, and the cosmos, in the large: that it is one, dynamic process. That it really is an idea that carries over from the Leibnizian-Riemannian concept of dynamics, of *analysis situs*: That you are dealing with one continuous system, of interaction, and that the Biosphere necessarily requires the radiation coming from the Sun, and from other cosmic sources, like nebulae and things like that, that this is what drives the process of photosynthesis.

This is what the photosynthetic plants are drawing on, and then they transform that energy to higher energy-flux densities, as Lyn likes to discuss, to then drive this process of shaping and transforming the Biosphere and the atmosphere, and really, creating, and constantly reshaping life's relationship to the Sun and to the cosmos, through these kinds of—as you said—these by-products, these fossils of biotic activity.

**Cerretani:** Right. I'm wondering where Vernadsky

talks about solar panels. Is that any part of this, in these three phase-spaces?

**Shields:** That's in his "Stupid Shit" section.

**Cerretani:** Yes, those and windmills.

**Shields:** This is what you will do if you have not read my book, [Vernadsky would say]. If you do not understand how the Biosphere functions, you will build windmills and you will build solar cells.

**Cerretani:** And once you finish my book, you will go and destroy all the windmills and solar panels that exist.

**Shields:** You will smash them.

**Cerretani:** You will smash them—right!

**Jones:** "Solar cells," that's where you send Greenies, who break the law, the eco-terrorists.

**Cerretani:** Yes, exactly.

Well, that's the biogenic migration of atoms, and you said, we're going to say it a lot, because that is how the Biosphere works. We have a lot of biologists, we have a lot of hydrologists, we have a lot of engineers. But what is missing, to go back to the point that I made in the beginning, what is missing from the discussion on infrastructure, is that it has to be recognized, what the role of infrastructure is, with the Biosphere and the rest of the Solar System and beyond. We have to consider those things, because that is what you're dealing with.

And that's the role of the Federal government; that's the role of the American people, to understand, these are the processes we are dealing with. That is the standard. We are not operating on anything less than that. So, people can wake up their imaginations, because we're dealing with something on a grand, grand scale, and the future is wide open to us. The point has been made, that we haven't done something like this before. We were supposed to. As far as I understand, after the TVA, this was supposed to be the big project. We were supposed to move farther out and transform our part of the country to do this. And we have not done something like that.

Now, not only do we have things like that, sitting here on the books, in the United States, you have the same thing in Russia. We are talking about continents here—the whole Middle East, that we can take responsibility for. Yes, you have a real evil force on the planet that is trying to stop these things, but a lot of it is just not knowing some of the fundamental scientific processes

that are going on, and these questions are raised when we tackle and commit ourselves to something like NAWAPA.

So, I think that wraps up this particular discussion. Do you guys have anything else you want to include, in terms of implications, or anything else you think is necessary?

## A Gift to Humanity

**Shields:** I mean, just the obvious, what you began with, is that, without the impeachment of this current President, without the implementation of a Glass-Steagall standard, without the kind of economic regulations that are going to allow human beings to behave the way they ought to behave, to end this crazy speculation, to end this sort of lunatic casino system, none of this is possible.

But if we do that, all things are possible. That the business we will be able to get down to, once those actions have been taken, is going to be incredible.

**Jones:** And, as Lyn said: NAWAPA, in its broader implications, really is the means through which large portions of our population could realize their immortality: That it's a lawful process, it's part of the natural, anti-entropic development of our universe, and by participating in that, you contribute something to the infinite development of the human species in the universe at large. So it's really a gift to humanity, and it would be criminal to rob people of the opportunity to have an immortal type of identity.

**Cerretani:** Right, exactly. And just so it is understood: Getting rid of Obama is part of the NAWAPA project.

**Fansler:** Yes. Lyn made the point that it's one of the most effective things we can do, to usher in the post-Obama era, is to give people a sense of what it actually is. And that will force the question; that will drive him out. Because, the more that people can grasp exactly where we need to go, and have a vision of the future, and have a vision of participating in immortality in humanity, then they will be ready to act and they will create an environment in which he will go. And that vision will come into being.

**Cerretani:** Well, I think the American people are ready, the Biosphere is ready, the Basement is ready. So, let's get rid of Obama, and get to work!

That's all. See you next time.