

EIR The LaRouche Show

Mankind, the ‘Weak Force,’ Drives and Shapes the Universe

LaRouche Youth Movement leaders Sky Shields and Alicia Cerretani were interviewed March 20, on EIR’s The LaRouche Show, by host Harley Schlanger. The Internet radio program airs every Saturday afternoon at 1 p.m. Eastern time, and is archived at (www.larouche.pub.com/radio).

Harley Schlanger: Good afternoon.

Just a little over two weeks ago, in the Texas Democratic Party primary, there was a shock delivered by the voters of the 22nd Congressional District, to the political establishment throughout the world: A candidate, Kesha Rogers, running as a LaRouche Democrat, campaigning for the impeachment of our narcissistic President Barack Obama, was elected by Democratic Party voters in the party’s primary, to be their candidate for the November 2010 elections. This shock was followed on March 13, by another historic webcast by Lyndon LaRouche, in which he clarified how the dynamic process which led to the Rogers’ victory represents a now-unstoppable dynamic, which will lead to, not only the end of the Obama Presidency in the near-term, but the coming defeat of the Anglo-Dutch-Venetian empire as well.

And this has led to some interesting commentary which just appeared in the last couple of days: According to a Harvard professor and British imperial spokesman Niall Ferguson, the impending demise of this empire, and its puppet Obama, could lead to a new dark

age, of several generations, or even centuries. This was presented in a piece he wrote, titled, “Complexity and Collapse: Empires on the Edge of Chaos,” for the March-April issue of the bankers’ *Foreign Affairs* magazine.

Or: It could be, as LaRouche Youth Movement member Sky Shields wrote, in a memo immediately after Kesha Rogers’ victory, it could be the rebirth of a Mars colonization project, based on the reassertion of a Riemannian approach to physical science, and a rejection of the radical positivist outlook, enforced by the Empire,¹ and expressed in the Ferguson article, which is committed to a reduction of human population on our planet from close to 7 billion people to less than 2 billion.

So, joining me on The LaRouche Show today, to discuss this extraordinary opportunity, will be Sky Shields, who wrote the memo, and Alicia Cerretani from LPAC-TV, who was the coordinator, on the ground with Kesha, organizing the incredible breakthrough, which has reverberated far beyond the physical boundaries of the 22nd Congressional District of Texas.

Welcome to The LaRouche Show.

A Turning Point in World History

Schlanger: Let me begin, Sky, with you, because you opened your report by saying that Kesha’s victory

1. Sky Shields, “Kesha Rogers’ Victory Signals the Rebirth of a Mars Colonization Policy!”, *EIR*, March 19, 2010.



EIRNS/Stephanie Nelson

The victory of LaRouche Democrat Kesha Rogers (shown here campaigning at the Pasadena gun show Jan. 11) in the 22nd C.D. primary in Texas, represents a now-unstoppable dynamic, that will lead to the end of the Obama administration, and defeat of the Anglo-Dutch-Venetian empire.

represents a turning point in world history. What is it, for you, that defines this potential turning point?

Sky Shields: It's interesting, because this gets to the principle that we're investigating, in the so-called physical sciences, with our cosmic ray project, which we'll get to discuss later, which is perhaps a little more clear in social and political processes: That there's a point—people typically have a misconception—where they expect history to be made, large changes to be made, by the people who possess the most clout, in terms of money, in terms of weaponry, or in terms of whatever forms of power people are inclined to worship, at any given moment.

But what you saw with Kesha's victory, is that, what is inevitable about the development of human society, is that, ultimately you reach points of inflection, of crisis, where it's purely principle that matters. And in the case where principle is brought to bear, it gives the impression of a much weaker political force, as we are in all the typical terms—you know very well, we don't have a lot of money, we're certainly not well-armed,

we're not very powerful in the typical senses, of what people typically mean by powerful when they discuss politics. But we do have principle on our side, scientific principle, and that's clear.

The decision to elect Kesha, in the 22nd Congressional District in Texas, by the population there, was their responding to the tide of history. They're responding to the necessity of the human species to turn from the direction they've been headed in, and move in a direction that's more sane, even if the people, the voters themselves, couldn't articulate it in those words. And that's exciting.

Schlanger: Well, I think Kesha articulated that, in connection with the impeachment of Obama, to saving NASA. And clearly, you picked up on that in your memo on Mars colonization. To what extent—and I should ask Alicia this question as well, because she was there on the ground—to what extent, Sky,

from your view, does this become a conscious process? Or, how does it become conscious, this connection between the failure and the incompetence and the disastrous nature of the Obama Administration, and on the other hand, the potential embodied in NASA?

Shields: At this point, right now, the majority of the population, I think, understands instinctively, because they're human, that what this administration represents, what Obama represents, is something predatory, is something that's dangerous; it's in opposition to their physical survival. They see this in what was done—instinctively, they recognize this by what he's doing in health care. They recognize it in a more explicit form, by his demonstrating his allegiance to the banks with the bailouts. They recognize that his attacking the U.S. manned space program is an attack on their future. Again, they may not understand these in an explicit sense, but instinctively, anybody who's human recognizes that what this administration represents is something that's anti-human. And so, they've been able to respond to that.

My view, right now, is, that our job, in aiding, working with Kesha's campaign, and the task that Kesha has before her now, is making that understanding explicit to the population. We've got a major educational project here.

We Have a Unique Perspective

Schlanger: Alicia, you were very struck in the organizing, by the way in which what LaRouche talks about as the "Percy Shelley principle," or the mass-strike process, becomes manifested, when there's an organizing principle, a higher organizing principle in a sense, reaching down and connecting them to these universal principles. Why don't you just describe a little bit what you saw, the way this was working in the campaign in the 22nd District?

Cerretani: Well, I think that it worked, our organizing worked, and the victory happened, because, like Sky said, it was instinctual to the people there, that what was going on, was, in a sense, cancelling their future, writing off the future. Even if some of these people working at NASA are looking at retirement, they knew, still, that this policy was—in- instinctively, they knew what the implications were. It wasn't just losing a job. For a lot of these people there were greater implications.

But, what we did, what we were able to do in the direction of LaRouche, is bring them something, bring them an idea that was outside of the process that they found themselves in. Because, as it stands right now, the rate of the economic collapse has most people in a big panic, whether it's their mortgage, their job, their children's future. And so, being human, they react in saying, "I don't like this. I'm going to fight against these cuts," in whatever capacity people have been able to do it.

But, what needs to happen, and what we were able to do, as a start, as a foot in the door in the 22nd District, is to give them a positive conception, to clarify why they have this instinct that shutting down human space flight is a little bit different than shutting down the local supermarket. And it's developing that positive conception in getting people to begin to defend what is human about themselves, and their children, and mankind, generally, and have them fight at that level. And we were able to bring that into this campaign.

And then, so, working with LaRouche, we have a unique perspective, because of the discovery he's made, and what he represents, just as a cultural tradition. We have a unique opportunity to see, really, what mankind



EIRNS/Stephanie Nelson

Alicia Cerretani (shown here at a Rogers campaign dinner in February), described the impact of the campaign on the Texas primary: "What we were able to do . . . is bring them something, bring them an idea that was outside of the process that they found themselves in." But, she added "We've got a major educational project here."

represents. Because in today's culture, it's largely lost, or it's hidden. And our job now is to get people to fight on that level, to defend what mankind is, not just putting out certain fires that're happening more and more, putting them out as they spring up, as the economic collapse worsens.

Schlanger: I like what you both said about making something that may be instinctual, connecting them to a universal principle behind it. And I'd like to ask you, also, Alicia, on this question of the mass-strike process: You were there—the District includes the Johnson Space Center, NASA—to what extent are people able to get over their immediate problems, and how did Kesha bring them to confront this idea that they have to think 25, 50, even 100 years into the future?

Cerretani: Well, I think one thing we were able to do, that neither the scientists could do, nor the political parties could do, is, we brought the two together: We brought a scientific mission, which is colonizing the Moon and Mars as a programmatic approach of Kesha's campaign, and the political fight, the best option what to do politically, immediately, together in one campaign. Because that's the only way they make sense: You can't have science without politics, you can't have politics without science. The two are ultimately part of the same whole, and that clarifies for people what their

mission has to be, what they have to do. Because, in a certain sense, the population today is really rendered impotent, because all these things are dichotomized, that this follows this, and that follows that. Or, you're a scientist, so therefore, you can't be a politician; you're a politician, therefore, you can't be scientist—whatever, everything's fractionalized.

By clarifying those things, we were able to literally act on the universe, and get something to happen, an advancement of the process, by putting the question of impeachment on the table as a reality, nationally and internationally, and putting this question of human space flight, which is something that's going to have to happen if we're serious about having any kind of future, for modern civilization.

So, we put those two together. And it makes sense, if you think about it, that they have to be put together, put on the table together.

One Universe

Schlanger: Now, Sky, what Alicia was just talking about really brings up this, probably most controversial aspect of your memo: the interrelationship between the investigation of cosmic rays, and social processes. Or you might rephrase it as: How does progress in civilization occur?

Now, in investigating this, if you look at it from LaRouche's standpoint, this is not a paradox, or controversial at all. But from the standpoint of modern science, and as Alicia was saying, from politics, it is a paradox. How do you resolve that paradox?

Shields: Again, this is something that, on one level, is going to be instinctive to the people we're talking to. But they've been trained, most of the population, actually the large majority, if not all, of the scientific establishment in the U.S. and abroad, has been trained *not* to recognize certain things—almost aversion training. This is the effect of certain positivist philosophical trends, in the U.S.

You have culture, and you have science in the world—world science, I should say—where certain principles that are obvious under other circumstances, for instance: Under any other circumstances, it's clear, that there's nothing in the universe that is not affecting anything else in the universe. You've got one universe. From an intuitive level, a real human being should recognize that it's not possible to study the universe as



NASA, ESA, A. Nota (STScI/ESA)

"There's nothing in the universe that is not affecting anything else in the universe. You've got one universe," stated Sky Shields, a leader of the LaRouche scientific research team. Shown: Star-forming region LH95 in the large Magellanic Cloud, as photographed by the Hubble Space Telescope.

though it were an agglomeration of objects, a collection of facts and little bits of material that are acting on other material. But that, instead, you'd want to take a real systems approach, an approach to sort of treating the universe as a One, and to view the subsumed processes in it, as processes that are necessary for the development of that universe as a One.

Intuitively, that should be clear. But people have been drilled with, over the last several decades, this idea that that approach is not "scientific." That "real science" is this radical reductionist approach, where you're taking elements down, smaller, and smaller, and smaller, and then trying to find a theory of everything, where you build the universe up, in the large, from these tiniest pieces. And that's led to nothing but paradox and dead end. Things that are insoluble, not because they're fundamental paradoxes. There's nothing natural about the paradox of quantum theory and other places. But only because there are paradoxes in the way the problem is being approached: This is telling you more about

the errors of methodology than it is about the science itself.

Schlanger: Well, there you're talking about quantum theory. But this approach has actually been at the center of the battle for several millennia, going back to Aristotle, and then, LaRouche has recently emphasized the important shift that occurred with Paolo Sarpi. So we're actually dealing with what is literally an imperial policy to treat science in such a way as to dumb a population down, aren't we?

Shields: Exactly, yes! This is imperial policy. But earlier this last century, we had the ability to break from this. If you look at what was represented in the period leading up into the British operations of World War I and World War II, if you look at what you had there, in Germany, and then, in the United States; if you look at what you had around the work of Einstein, the work of Planck, both of them playing off of Riemann's conceptual approach, Riemann's philosophical approach to the physical sciences: If you look at what you had there, there was the potential *at that moment*, to free ourselves completely from these reductionist approaches to the physical sciences, and to philosophy generally.

But then, an operation was run, a very serious operation was run, against Planck, in the form of the introduction of positivism, but then, all of its sister diseases: behaviorism, reductionism, more generally. All of these were launched in order to destroy this trend, and then to force it in the direction we went after the Copenhagen crew took over the Solvay Conferences.²

Schlanger: And it shouldn't be surprising, then, the way you just developed that, that the same reductionist approach that destroyed advances in science was then applied to human social dynamics.

Shields: Oh, immediately! Yes, exactly, immediately. And if you look at the people who were promoting it in the sciences, in most cases, you'll find that their ulterior motive was to be able to promote these as methods of social organization. I mean, it's significant:

Take a von Neumann, take any of these guys, and compare their scientific philosophy with their political and social philosophy, and you find these things go hand-in-hand. And on the better side, you find that the people who opposed this kind of fascist approach, like

2. The first Solvay Conference on Physics was in 1911; the last was in 2008.

Einstein, who opposed the fascist policy as political policy, also opposed it as scientific methodology. In their minds, it was very clear that they were fighting, except there was a One: There was a unified philosophical approach they were fighting for, and there was a unified philosophical disease that they were fighting against.

Yes, certainly. And it makes it clear to people, that they have to break themselves, right now, from the fallacy of free trade, from the disease of monetarism, that's controlling society now; it's necessary to have these radical changes in our conceptions of the physical sciences.

Defeating Ideological Slavery

Schlanger: You just anticipated where I was going next. And I'd like to throw this out to Alicia: the relationship of these kinds of conceptual methodological approaches, to economics. And we see in the district, the irony that you now have Democrats lining up to try and remove Kesha, or to diminish Kesha, and to have the Democratic Party express, on the record, that she is not a Democrat. And yet, they're appealing to Democrats, or to voters, who are losing everything, because of the policies of a so-called Democratic President! So, how do we make this connection between the social processes, the universal principles, to economic policy, Alicia? How did we do that in our campaigning?

Cerretani: Well, one thing, is that the American people have to become conscious. They have to become aware of how their nation has been subverted. And there's the interesting case of this Niall Ferguson: He's basically an imperial spokesman, and he wrote a piece basically mapping out this imminent dark age, which is something LaRouche has been saying all along. And this is what the American people are beginning to live through, is the beginning of a dark age.

And because we're human, and because it's instinctual, you're having this mass-strike effect. But what our mission is, what needs to happen immediately, is for these same American people, having their whole lives coming down around them, right now, to recognize that you're really seeing two systems confronting each other: You're seeing the American System, the American legacy of Franklin Roosevelt, John F. Kennedy, Lincoln, the Founding Fathers, which is represented through LaRouche and the campaigns that we're running, and the things that Sky and the Basement are pushing, in terms of the scientific frontiers: That whole legacy expressed as policy, through statecraft, is con-



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The LaRouche movement is fighting to break through the ideological slavery of the mass strike, and to provide, instead, the concept that “philosophy and ideology about the nature of the universe goes hand in hand with economics and statecraft,” explained Shields. Shown: a rally against Obamacare, Chicago, March 16.

fronting, right now, a British imperial system, a system of empire. And that confrontation has really defined world history, modern civilization as we know it.

And the way that LaRouche communicated this today, is that this is often done, that nations adopt policies of austerity that cut services to their people—like what’s happening today through the Obama Administration—through an ideological slavery. It doesn’t just happen in science. What you find in organizing, is that philosophy and ideology about the nature of the universe goes hand in hand with economics and statecraft.

Schlanger: This is real politics, isn’t it?

Cerretani: Exactly, that’s it exactly. But this is the point that LaRouche made: is that, the British intellectuals—if you can call them that—who are running the empire, who have deployed people like Niall Ferguson, or Barack Obama, Tony Blair, George Bush, Dick Cheney—the British intellectuals know, and have known throughout history, that all the crap, the positivism, the empiricism, the free trade—they don’t believe a word that they’re saying. They put that out there to enslave populations ideologically, to make the wrong decisions, such that this empire can have control over them.

And I think the American people are ready, and are smart enough, to figure that out. Because that’s the real issue of morality. And you’re going to need a strong moral commitment to progress to get through the po-

litical period that we’re in right now, because it’s getting very nasty.

Is History Cyclical?

Schlanger: Well, I want to come back to the Ferguson article, because Sky, I think there’s something in it, which gives away the anti-scientific—and in fact, points to the truly Satanic nature of this kind of argumentation—that he looks at human progress as something cyclical: that empires rise, they fall, almost as though this was a law of nature. In other words, that the universe, including human social dynamics, are not really dynamic, but they’re characterized by entropy.

Shields: Yes, to the extent that the entire introductory portion of Ferguson’s article was not completely just

bullshit and smokescreen, to the extent there was any content, it was in reinforcing the view of the universe that the empire always wants the population to have. I mean, the most crucial philosophical conception to impart to a population, if you’re running an empire, is the futility of an attempt to change the universe that you live in.

Look, there are certain philosophies that are always favored by empire, which have nothing to do with their scientific validity. It has to do with their political effectiveness. And these are his whole section on so-called “complexity.” Which has nothing to do with “complexity”: It’s a hand-waving trick to try to ignore the fact that real systems, that real phenomena in the universe have a *gestalt* character, where they can only be treated as wholes. Where the whole is not equal to the sum of the parts, the whole is more than the sum of the parts.

In trying to avoid this, you get all these different types of “chaos theory,” the fractal sciences, the so-called “complexity.” None of these are science: They’re always trying to convince people that something like free trade works; that somehow you can run an economy by not paying attention to running the economy; that, somehow, the sum total of all of our animal desires will add up to produce something in the large.

Because if people believed that, if you can really get people to believe that this is what economics is, then, when you come in and control the process—when you,



LPAC-TV

“There are certain philosophies that are always favored by empire, which have nothing to do with their scientific validity. It has to do with their political effectiveness,” declared Shields. The efficacy of this method can be seen in the failure of Congress to stop the bailout of Wall Street. Shown: Shields (right) with Peter Martinson in a “Basement Roundtable” discussion on LPAC-TV, Sept. 25, 2009.

as a banker, when you as a financial power come in and steer that thing—the population honestly believes that there’s nothing they can do to stop you. Which is what you have right now. Why don’t you have any sort of response from Congress, or anywhere, that is substantial—when you should you have—to the bailout? To the idiocy of a free-trade deregulation?

Schlanger: But Sky, let me play devil’s advocate for a second, since we are talking about the spawns of Satan, here. Isn’t it the case that they can argue that, in fact, human civilization has gone through what appear to be cycles of ups and downs, and human progress has not occurred as a continuous process, and so, the flip side of that is to ask the question from the standpoint that you presented in your paper: How does progress in civilization actually occur?

Shields: Mm-hmm. I mean, any one of these things—this is true. This is the same game they played with the economics, or with history: If you present the thing statistically, as a chart, you know, it’s going to go up and down. There are only two directions a chart can go: is up or down, up or down, left, right. So you’re going to see these little humps.

The question is, what is actually happening physically, at the moment you see the progress, or you see the decline? Those are actual decisions made by individual human beings, which cause those changes. The overall

direction is upward, is progress, because this is human nature. But none of it, the progress nor the decline, happens automatically. This is because you have individuals who decide to drive human progress. All human progress has depended upon the actions of a handful of people at any given moment, spread throughout history.

But the periods of collapse that you see, are because of bad decisions that are made. Right now, we’re at a point, where we have the option, we’ve got a choice. We have the ability to exercise human free will now, to decide, which direction are we going to go in. Are we going to collapse, the way Ferguson and his British controllers are calling for? Are we going to collapse with Obama, *or*, are we going to dump Obama and move in the direction that humanity should have been moving in, really, some time ago: Get back on the track towards the economic development of the Solar System, and beyond?

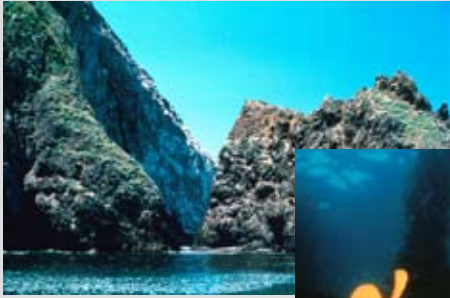
‘Weak Forces’

Schlanger: Let’s move into this next part of the discussion of cosmic radiation. Sky, on the question, following up what you just said: In a sense, there’s a paradox here, of what LaRouche has been talking about as “weak forces,” identifying human life as a very weak force in the grand scale of things, in the universe. And yet, he makes the point that these weak forces represent the most powerful potential. How does that work?

Shields: It’s one example that’s clear—you can do it in two stages: If you compare, first, living processes to the non-living; and then, after that, do a comparison of cognitive processes to the living but non-cognitive processes, and then to the non-living ones that are below that. You’re comparing between the three phase-spaces of the Russian scientist Vladimir Vernadsky.

Now, you compare the first two, you compare the abiotic to the biotic, and, on the individual level, I can give you an example I use, because it’s sort of vivid—dropping a rock on some small animal. The majority of animals would be killed by the equivalent size rock. Whereas, dropping that animal on the rock would not do any damage to the rock at all. It would also damage the animal in both cases. Just the example to illustrate that, even from the standpoint of physical forces, comparing the activity of any animal to something like an earthquake: Life seems like a much weaker phenomenon than the abiotic, than the non-living.

But then, viewed in the large, you take a look now at over a much longer timespan; take a look over the



NOAA/Shane Anderson

The Abiotic: Dramatic rock formations on Santa Cruz Island, show the Biosphere clearly making incursions.



NOAA/Channel Island NIMS

The Biosphere: Garibaldi damselfish (*Hypsypops ribocimdis*) live around the Channel Islands.

Life seems like a much weaker phenomenon than the abiotic, than the non-living. But then, viewed in the large, over the course of geological time, life, this seemingly weak force, is actually the most powerful force on the planet.



NOAA/Joe Heath

The Noösphere: Young scientists explore the tidepools at Moss Beach, Calif.

course of geological time, and you realize that life, as a whole, as a One, is *the* major driving force in shaping all the non-living, in the uplift of mountains, in the formation of oceans, in the shaping and the restructuring of the Earth's crust, life. This seemingly weak [force], when viewed in a snapshot, is the most powerful geological force, between the two, between things that you might call native geological forces, and the biotic ones.

Likewise, if you take the comparatively weaker force, because it is *qualitatively* more effective, it is dominant in comparison to the quantitatively more powerful force. So the weak forces are what are driving the thing.

If you now compare, if you introduce man, introduce human beings into it, we might be one of the weakest things in the Biosphere, in terms of just mass-to-effectiveness ratio here. You know, people like to point out that most animals in the Biosphere, when left to hand-to-hand combat against a human being, would do considerable damage.

But you take a look at that, and then you realize, and you look at the effect of human beings' human society, and again, you see that we've reshaped the entire Biosphere, using what? Human thought, human ideas. Human cognition, which is *the* thing that typically is the first thing written off by the reductionists, because it's absolutely unquantifiable. It's almost equal to zero

as a force. If you were to say what's the mass of a thought, or what is the temperature of a thought, or what's the energy-throughput of a thought, of an idea, you would register zero. And from a quantitative standpoint, you'd register that the thing would have zero effect. But then, you take a look at it qualitatively, and look at the effect on the Earth's surface and beyond as a whole, and you realize that this thing, this thought, human creative thought, is the most powerful force, not just on the planet, but in the universe.

And in that, is this principle of "weaker forces," being the thing that dominates, being the most significant factor—simply because they're weak? No. But because the way they operate is qualitatively, as opposed to quantitatively superior.

Social Dynamics

Schlanger: Well, and then, Sky—and Alicia, I'd like you to comment on this next point, because then, what you're talking about actually, is how does that ac-

tivity in one human mind, perhaps, the discovery of a universal principle made by one human being, become part of a more powerful social process, and we're back into social dynamics: How did that get organized? And including in physical terms, in terms of energy potential, energy-flux-density, as well as just social terms of creating a renaissance? I mean, that's really what we're talking about, isn't it?

Shields: Yes. I'm glad you asked that, and Alicia, I'll let you say something on this, also. But, in short, recognizing that, starting to be able to realize that now, it is this social process, it is the invisible effectiveness of thought of the individual creative human being, mediated through a social process, which is then mediated physically, through the universe, in the form of human economy, that that process, you can start to get a sense of that, you can start to get a sense of what we're talking about, when we're talking about Solar System development. We're not talking about sort of optionally sending out this probe or that probe, or sending this person or that person: We're talking about looking at the Solar System and the universe, as a single system, and then acting on it, economically, developing, that way. We're acting on the dynamic, in the exact same way, as a society.

So, this idea, if you can get a concept of what human society is as a dynamic, as a harmonic, as the driving principle, although it can't be quantified in any simple sense—but as the driving principle for human economy, and through human economy for the organization of the universe, then you can start to get an idea of economics. But then, working backwards, you can start to get an idea of what the significance of this cosmic ray project is that we're working on.

If you want to say: Now, in what way is the universe already organized, on the basis of the abiotic, but then also on the basis of the biotic; because you're asking yourself, in what way is the harmonic set of interactions throughout the universe—what you see, you see their discrete expression in the form of the different field structures, different types of radiation that you get through interplanetary, interstellar, and intergalactic space. But if you start to recognize that these are one continuous system which is playing a role in the development of the Biosphere on Earth, and you begin to have to ask yourself, "Well, exactly what are the physical limits of that Biosphere, if that's the case?" You know, it extends much further than the surface of the Earth. At that point, you can start to get an idea, "Well,

what is the system in the universe that we're acting on to develop? What is this preexisting harmonic system? That we're going to tap into and change ourselves as this weak force in the universe of humanity?"

Schlanger: And Alicia? You've been doing some work on where we have to go with energy development. I assume you see the same thing Sky's just talking about, in terms of the problems of dealing with an irrational population, that's terrified of nuclear energy, but nevertheless, has no other alternative!

Cerretani: Right. Well, this is where it gets to be fun, because at the end of the day, there is an accountability to the way you think. Your culture, and what you choose to do, is not just your decision. As a human being on planet Earth, what we're finding, because of the nature of the universe that we're living in, is that we, as mankind, have a certain responsibility to continue to create and develop. Taking a cue from what the abiotic and the biotic have created. I mean, just thinking about the intricacies of just the human body; or take any Biosphere, or any desert or a rainforest, there's an interaction that's not arbitrary. It serves a purpose and it's got a directionality to it.

And so, the question of culture, to say that the culture, and economic policy is somehow arbitrary, is crazy. Anyone can think about it for just a couple of minutes, and say, "Okay, maybe I do have a purpose here; maybe there is something I'm supposed to be doing with my life. And then, this freakout around consuming and creating more energy, lots more energy. I mean, we're talking about not just energy. We're talking about not just electrifying the planet, but we're talking about building industrial bases on the Moon and on Mars, and bringing life to other planets. So we're going to need to create—you know, if the environmentalists are pissed off about the kind of energy production we're using now, they're going to have a heart attack when they find out what we're planning to do, and what we're going to make happen in the coming century.

Because, what you realize is that, our job is to create; mankind's job is to create. And the discoveries that led up to Einstein, and William Draper Harkins: They made their way through a whole arc of discoveries—Mendeleev, the Curies, Becquerel, down into the subatomic. And in making these discoveries about what matter is, they overthrew all of these other assumptions and hypotheses about how the universe worked. Now they weren't just discovering how matter works, or how

energy works. What was happening in this arc of discovery, is how the human mind works and can discover how the physical universe works. So there's a relationship there; that is undeniable. And the fact that we were able to discover, and are currently working on, today—mankind is working on how to master a fusion reaction—it's not just an energy policy; it's not just a different power source. In a certain sense, and the ability for us to be able to discover things like that, really, as LaRouche has said recently in a paper, puts us in a position as assistant to the Creator. We have the power to create.

Theology: The Nature of Man

Schlanger: Alicia, just to follow this up: This is where Lyn starts raising what he recently started calling a question of theological strategy, about the nature of man. Because what you were just talking about, is that obviously, part of the fragility of human life, is that it's not everlasting, that we humans are fragile. We should have a longer life-expectancy than we have, but nevertheless we're going to die. And this question of immortality, of getting people to think of themselves as part of this historic development of civilization, outside of the Earth's atmosphere and into the astronomical phase, that this is really where you see the problem: Why people allow themselves to be dumbed down and stupid. Because they get trapped in their fear of this question of immortality.

Cerretani: Mm-hmm. Well, that's why there has to be a culture. I mean, the culture has to support individuals to be bold, especially coming out of *this* culture. There has to be cultural support to be bold, and to break with popular opinion, and to really change your identity, and what most people's identity obviously is at this point, to a creative assistant to the Creator.

That is an incredibly profound idea. I mean, that's a lot of the reason why what LaRouche is doing with his Youth Movement is not just to do the political "leg work"; it's to force a change, to force an upshift, act as a catalyst in the culture today, to bring out the best in people. To bring it out in the people that you talk to every day, that's already there: It has to be catalyzed.

Schlanger: And that's really the organizing process. Not getting someone to agree on a set of recipes for an economic policy, but to get people to recognize that higher potential that resides in them. And in fact, to act in such way as you demonstrate your love of humanity and your love of that person's potential, as op-

posed to what a practical stupid jerk they're acting like, in their day-to-day activity!

Cerretani: Right!

Schlanger: [Asks Sky to answer a question from a regular listener:] "Could you please explain in more detail, how this moron Niels Bohr, and the Copenhagen School, twisted Einstein's theory, that light travels in wave-like quantized packets of light, into a mathematical equation?"

Shields: Einstein began, he launched, and then began a real revolution, not just with his work on relativity but with his and Max Planck's pioneering work on quantum phenomena. And what he said, he made the point himself, that there were—he expressed his opinion in written form and elsewhere—that we were on the verge of a new type of causality. And Einstein says that the causality we're moving towards—you could compare the causality of physics before Einstein, to a beginning piano student at the piano, plunking out a number of notes, but not understanding their connection, just understanding their sequence one after the other; to the kind of causality that's involved in a Bach fugue. That's his exact comparison. Where the causal interrelations in the portions there, aren't governed from one part to another, but there's a type of unfolding of the whole that is what governs the relationship among the parts.

And Einstein was clear on that. He said, this is a different type of causality than typical physics which requires point-to-point, object-to-object. And he was tackling that, from the highest philosophical standpoint.

Now, Bohr and the Copenhagen crew, their approach to this thing was just largely incompetent and corrupt: The idea was to try to say, "Yes, this problem of causality, we'll throw it out the window and we're going to impose this completely unknowable statistical model, that can only be described mathematically, but there's no knowable reality connected to it." And so they pushed, and they pushed an imperial program again: The universe is not knowable. The universe is describable; perhaps, there's statistical relations that you have to subject yourself to. But fundamentally, it is not knowable. It's of a character that's completely different from the character of the human mind.

Now, what Bohr and the Copenhagen crew are promoting, is an ideology that goes all the way back to the oldest known forms of empire. That this is an ideology that's completely antithetical to human creativity,

and it's meant to *crush* any expression of it.

Schlanger: And if this ideology prevails, then Ferguson will be right, and we'll be in another cycle of destruction of civilization.

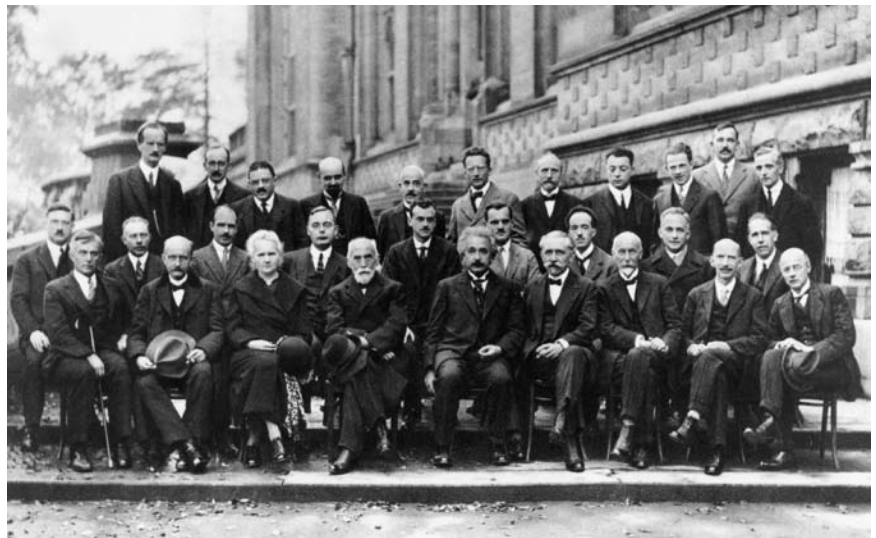
Shields: Precisely; where the British or some other imperial entity is expected to crawl out on top, like roaches or something.

But the real direction, if you take a look at the direction now, instead, that, what was the real revolution that should have happened at that point? What was the revolution that Einstein and others were on the verge of pushing and promoting, and what is the one that we're in a position, now, to carry through, as part of our political activity? It's to a view of the organization of the universe, and a view of causality, that is premised upon the exact same principles that govern human creativity, human creative thought. It's an image of the universe as a creative One. And this is what Einstein was fighting for, in arguments that have been largely misunderstood up to this day.

Schlanger: And Sky, as far as I know, he *never* capitulated, in the face of the withering criticism directed at him for not developing a mathematical model!

Shields: Oh! Never once, on this! I mean, he worked on organizing—he was working seriously on what a functional model was. You know, there's a possibility, the development of the correct *physical* model, will allow you to create—you'll have mathematics produced as a shadow of the thing, and there's a desire to have the shadow to be able to work with.

But first, you never state that there's no ontological existence, there's no ontology to the theory you're creating. But also, you have to recognize that this human creativity is something that's fundamental to it. Human creativity is not a phenomenon that's added on top of the physical universe. Even creativity is—the anti-entropic development of the universe is primary, the biological substrate to direct that, to manifest that, and then the physical substrate to control the expression of that biological substrate—*those* are the secondary phenomena. The idea of the atom, the idea of abiotic physics,



Einstein began a real revolution, Shields said, both with his work on relativity, and in his pioneering work with Max Planck on quantum phenomena, while Niels Bohr and the Copenhagen School twisted Einstein's theory to say that the universe was unknowable by man. Shown: the Fifth Solvay Conference in 1927. Front row, second from left is Planck; Einstein is seated, center; Bohr is seated, second row, far left.

these are derived from a principle of human creativity, and Einstein understood that.

Schlanger: We have a little less than ten minutes, and I want to try to pull a couple of these threads together. But I want to encourage our listeners, who are finding this to be quite a provocative and fascinating discussion: On the www.larouchepac.com website, you can find a whole series of videos, including the Moon-Mars colonization videos, discussions of physical economy, credit versus financial policy, virtually everything that we're doing, that the LaRouche Youth Movement is putting out, the work that Sky and his colleagues are doing in the Basement under the direct supervision of Mr. LaRouche, is aimed at making clear that this is the only pathway of survival for the human race. And I'd really encourage you to get to know the LaRouchePAC website, as your actual living university. Because, there's no way you're going to be able to be fully effective in this fight, just by mastering the points of the LaRouche Plan. You really have to know where that's generated from.

And Alicia, I'd like to come back to you, on a question that you mentioned to me before the show, that one of the things that LaRouche brought up today, was the relationship of this whole question of social processes, cosmic rays, to the question of morality. Because you have the phony morality of the Obama team, saying

that the moral imperative is this health bill — a moral imperative that they're planning on killing off whole sections of the poor, sick, and elderly in the United States!

So, Lyn talked about where real morality comes from, and I wonder if you could present that to people?

Cerretani: Sure. This came up at the end of the discussion we'd been talking about earlier: that you have a whole movement, through academia, through different social, ideological outlets, to skew the population's idea how the universe works and their role in the population. And Lyn said this, if you take people's identity of their role in the universe away, you're taking away their morality. Because if you skew what their role is, what their responsibility is, then you are taking away any checks on their behavior, and that what people do or think is okay to do, in the limited time they're alive, becomes habit, or they do what's popular.

So what LaRouche's point was, is that morality, the meaning of morality, is the defense of this exact role of mankind, that we play an incredibly profound role in the development of the universe, and that that role needs, obviously, as you can see, with what's going on today culturally, politically, economically, that role needs to be defended. And it's the defense of that role, it's the securing of that role, of man as a creative being, and that's expressed in many different ways—scientifically, artistically, musically, politically—but that role needs to be defended and secured and protected. And it's not, as you see, morality is not arbitrary: It's the commitment to man's role, which really is a commitment to the future. . . .

The fun is going to be getting people to reflect on why they think something that's practical, is practical. Who made that decision for them? That's the best organizing anybody who considers themselves to be political can do for somebody else.

Schlanger: Well, our colleague Cody Jones once described a good organizing session, as one that leaves a bunch of mangled bloody axioms, scattered around the room. So, Sky, speaking of mangled, bloody axioms, where are you guys going with the Basement work, now? I know that Lyn has been very definite on looking on this question of cosmic radiation and taking as a starting point, your memo on "Now Kesha's Victory Has Opened Up the Universe To Us." What kind of thing should we expect to come out of the Basement in the near future?

Shields: Well, we're going to be launching, in fact a very harsh and a very detailed attack on this positivist approach in the physical sciences, but also more broadly. And one of the central pieces right now, is going to be revisiting this question of "what is matter?" Revisiting the debate that took place between Einstein and Bohr, and continuing the work that Einstein was doing, his understanding of causality, from the standpoint of—you know, we say, "cosmic radiation," but as LaRouche has been saying, what you mean is *harmonics*. What you're looking at, is, what are the principles that exist, not as discrete points throughout the universe, but exist as universal principles, which act everywhere in the universe, as though at once.

And then, to begin with that, to begin with that as your model for causality, because that is the way principles interact, and then, to see their shadow, as generated singularities, that you call matter. The thing you call particles, these are not things that have an actual, discrete existence; they're singularities that are formed as the intersection, of large-scale, harmonic, wave-like properties, wave-like phenomena. And if you can begin to reclaim that idea, suddenly, you realize that, if that's your view of the universe, if the universe functions in that way—which we're familiar with, by the way living creatures interact, by the way human society functions, and human ideas work—these are the physics of human ideas. If you can reclaim that as being the actual way that the physical universe functions, suddenly, all these paradoxes that arose in the debate around attacking the quantum, are seen to be, as I said earlier, not objective paradoxes, but subjective ones. They're telling you that your understanding of causality was wrong in the first place, *specifically*, the exclusion of human creativity, and the exclusion of morality from physical law.

The idea that morality, as Alicia described it, does not exist in the physical universe, that assumption leads you to a dead end. You've got to return to an idea that morality, creativity, these are efficient physical principles, and that's our direction.

Schlanger: Sky, I don't think Niall Ferguson is going to be too happy with that direction coming from the Basement. But I think he and his friends should just ride the cycle down to the Hell that they're trying to create, and let the rest of the human race move ahead into this new era, that you so boldly proclaimed was opened by Kesha's victory.