

## Poetry: The Shadows Which the Future Casts upon the Present

*The New Paradigm for Mankind program for Sept. 3, 2014 featured a presentation by Megan Beets of the La-RouchePAC Basement Team. She was joined by Jason Ross and Benjamin Deniston. The video is available at <http://larouchepac.com/31673>.*

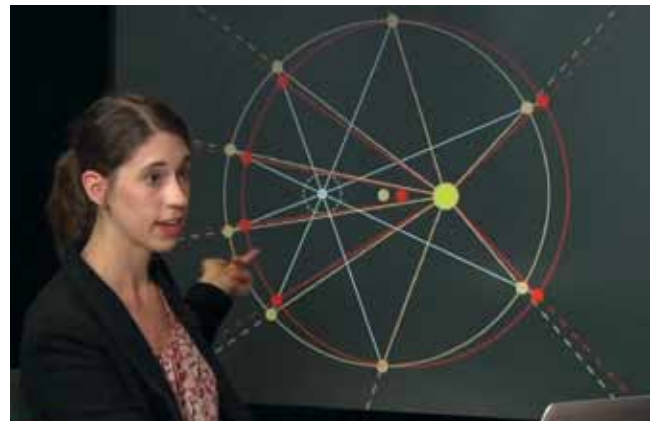
I'd like to start with a provocation from Vladimir Vernadsky. I'll just read two quotes from his works. One is from a 1931 paper, in which he says:

“With the appearance of man in the biosphere ... the action of life on our planet develops and changes by the effect of his intelligence to such an extent, that it becomes possible to speak of a special psychozoic epoch in the history of our planet, analogous to other geological epochs in the change effected in living nature on Earth....

“What is even more, here we visibly go beyond the limits of the planet, everything indicates that the progress of the geochemical action of intelligence, of the life of civilized humanity, goes beyond the limits of the planet.

“We see here a manifestation of life which, although located on our planet, indicates properties of living things seemingly not bound by it. Let us note several of the most profound manifestations of life: Human intelligence and the activity of life, organized by this intelligence, changes the progress of natural processes and similarly it changes the other manifestations of energy known to us, but in a new way.”

He follows that up in a 1945 paper, called “Some



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*Megan Beets demonstrates a model of Kepler's "vicarious hypothesis," during the New Paradigm for Mankind report, Sept. 3, 2014.*

Words on the Noösphere”—the noösphere being the domain of human thought and the action of humanity. He says:

“Here, a new riddle has arisen before us. Thought is not a form of energy. How then can it change material processes? That question has not as yet been solved.”

So what you have by Vernadsky is the rigorous conclusion of a scientist, that the action of human intelligence and human thought is an absolutely unique phenomenon on the planet, but then, what I read in the first quote we should really keep in mind: It's perceived on the planet, and yet, *it's not bound by the limitations of*

the planet, it's not bound by the experiences of the planet.

So, with that as a context, what I'd like to do today, is offer some thoughts on the unique functions of the human mind per se, which is not a derivative of man's biology, but which is, rather, a derivative of the unique and very lawful creative function of the mind, which we see reflected in the universe around us, and in which the human mind uniquely, as far as we know, participates.

### How Do Ideas Come Into the Mind?

I'll refer back to something, Jason, that you brought up last week, which is the fight between Plato and Aristotle on the question of how human beings come to know something. What is the nature of knowledge? How do new ideas come into the human mind? And you highlighted Aristotle, whom we see here in this wonderful Rembrandt painting, where Aristotle is coming to know Homer by feeling his skull (**Figure 1**). So we have Aristotle, who said that the human mind is as a blank slate upon which nothing is written, and that over the course of his life and his experiences, he takes in the world via his senses, and those sensations and the impressions of those sensations is where knowledge comes from.

Now, there's this wonderful—not wonderful, really atrocious, but very revealing—passage from his work *De Anima* (On the Soul), which I'd like to read.

“Since, according to common agreement, there is nothing outside and separate in existence from sensible spatial magnitudes, the objects of thought are all in sensible forms, both abstract objects, and all the states and affections of sensible things. Hence, no one can learn or understand anything in the absence of senses, and when the mind is actively aware of anything, it is necessarily aware of it along with an image, for images are like sensuous contents....”

So, there's no possibility of thought: Ideas cannot occur in the absence of sensual impressions, according to Aristotle; the senses and the experience of the senses and the measurement of the senses are the source of ideas, and thinking can't occur outside of that kind of process. Now, this is wrong! This is *untrue*. And it's not hard to demolish. Both Plato, but then later, the very

FIGURE 1

### Rembrandt's 'Aristotle Contemplating a Bust of Homer'



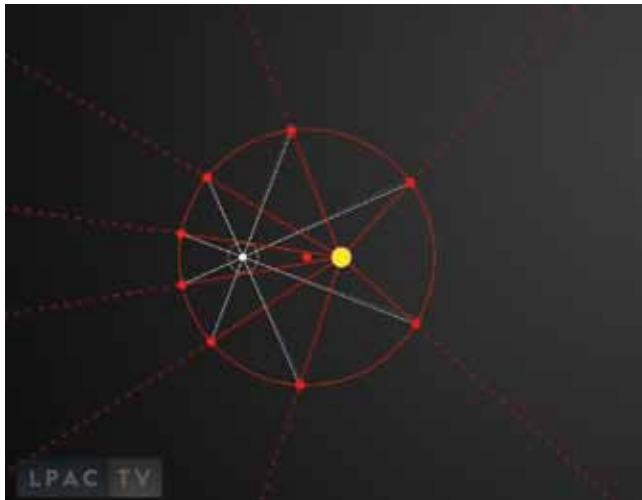
*Aristotle believed that knowledge is derived from sense-perception. In Rembrandt's painting (1653), Aristotle is shown touching Homer's head, perhaps to see if he might imbibe some truth therefrom.*

significant thinker Nicholas of Cusa, among others, demolished this by posing simple questions.

For example: How would a person come to know a simple geometric form like a circle? If all knowledge comes from perception, where do we ever perceive a perfect circle? Where would we ever get the idea of what makes a circle circular, from perception, when it never actually occurs in the perceptible universe? Or, similarly, he brings up the idea of equality: There's nowhere in nature that we can measure two perfectly equal things. So then, where would the concepts of equality and oneness come from?

So it really gets down to this lie, that the perception and the measurement of experienced objects are how mankind gains access to truth. This isn't true. Measurement of objects, perception and experience, in and of themselves, tell you nothing. And in fact, it's very possible and common to have two or more true measurements which contradict one another. You can have two, valid

FIGURE 2  
A Model of Kepler's 'Vicarious Hypothesis'



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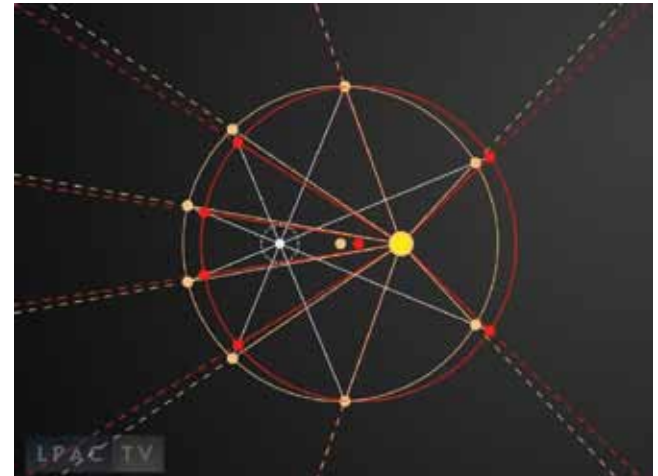
measurements of something, which can't both be true. And the example I want to give of this, is the example of Johannes Kepler and his *New Astronomy*, where he presents what he calls his "vicarious hypothesis." It's his hypothesis of the nature of the planetary orbits, and it's "vicarious," because Kepler doesn't actually think it's true, he's using it as a stand-in, or a certain mnemonic device, to think through what actually might be going on.

### Kepler's Vicarious Hypothesis

This is the model of Kepler's vicarious hypothesis (Figure 2). We have the Sun in the middle; we have the red circle which is the orbit, in this case, of the planet Mars; the red dot in the center is the center of that circle, the center of Mars' orbit. And then, the white dot to the left is something called the "equant," which is a nonexistent point, somewhere out in space, which determines how fast or slowly the planet moves. And so, with this model, with the assumption of the equant, with the assumption of a circular orbit, and with a certain assumption of the distances between the Sun and the center, and the equant, Kepler is able to create a model of the planetary orbits which is almost perfect, which far surpasses the models of any of his predecessors in terms of its accuracy, using this model to tell you where you would see Mars in the nighttime sky, this was the most accurate. And it was a breakthrough within this system.

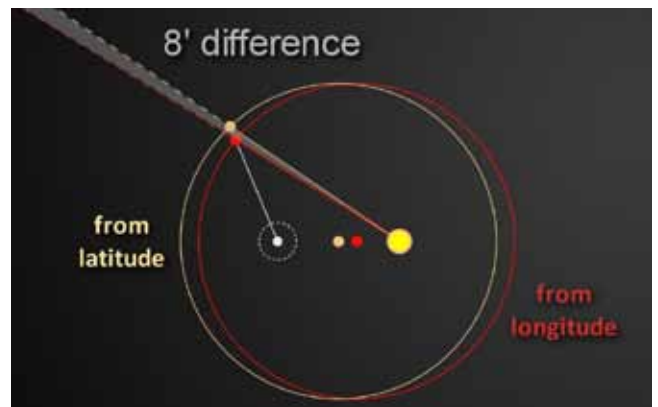
Now, Kepler takes a second measurement—he derives the distance between the Sun and the center of the orbit, not from a model, but from actual observations. He takes observations of what he calls the latitudes—

FIGURE 3  
Kepler's 'Adjusted' Hypothesis



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FIGURE 4  
The 'Crack': The 'Eight Minutes of Arc'



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how far above or below the plane of the ecliptic we see Mars. He takes an actual measurement, and he calculates what the distance must be between the Sun and the center of Mars' orbit.

Now, when he compares that to the vicarious hypothesis, he finds that they're different. And when he then adjusts the model—what he's going to do, is he's going to change the distance between the Sun and the center of the orbit to reflect this true measurement, he gets a difference.

So you see here (Figure 3), the red orbit is the original vicarious hypothesis; the lighter orange orbit is the adjustment based on the second measurement. And he gets a crack. And he gets what is famously called his eight-minutes of arc, this very small difference in the measurements (Figure 4).

Now, here's the problem: *There's no way to resolve*

*these two*. So the original vicarious hypothesis would tell us exactly where the planet should be observed. But the actual distances are wrong: They don't correspond to reality. If you put the correct distances in which do correspond to reality, the model no longer tells you accurately where you should see the planet! And there's no way to resolve the two. There's no special measurement, no way to adjust the model that would give you both the correct distances *and* the correct positions of the planets—it's impossible. The answer doesn't exist, within this geometry.

Now, this crack, the fact that there is no resolution of these two measurements, there's no way to make them correspond, that crack—it's not just an unfortunate event. It is these breakdowns of observations, it is these breakdowns of what can be gleaned via the senses—*these are actually necessary for man to come to new ideas*. The new ideas are not in what's currently known via the senses. The new ideas are beyond; and it's these cracks and these paradoxes which point the lively mind, the mind of the lively scientist, toward the intimation that there's something else out there. There's something else to be known, there's something new that's not currently being considered.

And that's exactly how Kepler ends up resolving this paradox; he doesn't go about trying to jigger the model and come up with some little approximation or compromise. What he ends up doing is entering a domain of a completely new thought, of an idea that there's actually a physical power in the Sun which is moving the planets; and he goes about a process of hypothesizing what the nature of this physical power, which is undetected, what the nature of this physical power could possibly be.

And this new idea of *gravitation*, of a physical power in the Sun—this is not derivable from geometry. This is not something you would ever come to by some series of logical changes and manipulations of geometry: It's a completely different, incommensurable, idea.

### **Not Every Hunch Is Wrong**

Now, what I want to get at today is that gap. That the difference or the movement from the current system, in which you have this paradox, this breakdown, to the new idea—there's an unbridgeable chasm there, and so I want to address that: What is that chasm? What is that action of the mind which gets us from one to the other? And Kepler expressed this, I thought, very well and very provocatively. He wrote a letter in response to his patron

Herwart von Hohenburg. And von Hohenburg had written Kepler a letter regarding one of his ideas, saying, I don't buy this. This just seems like a hunch that you have. I don't think this is scientific, this just seems like some hunch, why would I believe that that's true?

And Kepler responds: Not every hunch is wrong. For man is an image of God, and it is quite possible that he thinks the same way as God in matters which concern the adornment of the world.

That is really the sticking point: *How is it that these new thoughts of man, these seeming creations, purely from the mind of man, these eerie hunches, these intimations that man has, how could those possibly be true?* How could those possibly reflect something which is actually true in the universe around him? And how could these thoughts, as in Kepler's case, actually drive a revolution in science?

That action of the mind goes back to somebody, upon whose work Kepler developed, Nicholas of Cusa, coming about 150 years before Kepler. There are many, many places that Cusa addresses this characteristic of the mind, which is beyond the senses, but I just want to read one which is from a work called *Compendium*.

Cusa says, "Therefore, a completely developed animal in which there is both sense and intellect [man], is to be likened to a geographer who dwells in a city that has the five gateways of the five senses." He goes on to describe this geographer sitting within a walled city, and you have five gateways, one for each sense; you have messengers who enter the gateway of sight, and bring the geographer messages about things which are visible; you have messengers who enter through the gateway of sound, and bring the geographer messages about music and things which are heard, and so on. And the geographer then uses these things to create a mapping of the outside world.

Cusa continues: "At length, after he has made in his city a complete delineation of the perceptible world, then, in order not to lose it, he reduces it to a well-ordered and proportionally measured map. And he turns toward the map; and, in addition, he dismisses the messengers, closes the gateways, and turns his inner sight toward the Creator-of-the-world, who is none of all those things about which the geographer has learned from the messengers, but who is the Maker and the Cause of them all. He considers this Maker to stand antecedently in relation to the whole world as he himself, as geographer, stands in relation to his map. And from the relation of the map to the real world he beholds in

himself, *qua* geographer, the Creator of the world, behold Him, when he contemplates the reality by means of its image, and contemplates, by means of its sign, that itself which is signified. . . .

“With the full sharpness of his mental sight the geographer takes very intent note of how the eternal and inaccessible light shines forth in these intellectual, formal signs.”

I know it’s difficult upon first hearing, but you have Cusa with this beautiful image of this geographer and the walled city, this beautiful image of taking in the world, but then turning off the access of the senses, and going to hypothesize the unseeable, unhearable, cause of these things. And it’s only by this action, this unique creative activity of the mind of hypothesizing these causes, that man can actually come to know this inaccessible cause.

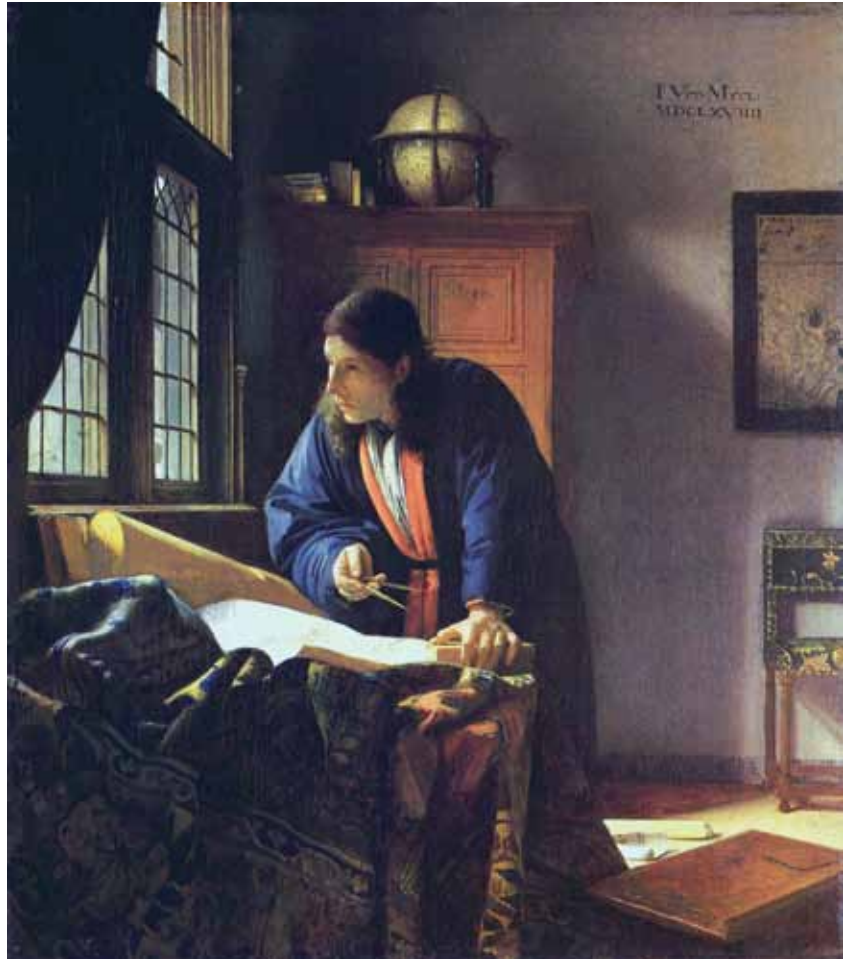
So that, coming from the Renaissance, really is the basis of what Kepler did, and of this real progress in man. And the most general name that we could give to the process that Cusa described, of man turning inward to sense what only the mind can sense—that more general name for that domain really is poetry. That’s the domain of the poet, it’s the domain of Classical artistic creation.

### The Domain of Poetry

And so what I’d like to do, is to explore that, at least in a preliminary way; I’d like to explore and offer some provocations from a few great thinkers on this issue of the creative activity of the artistic mind as it relates to this question we have on table.

So to do that, I’m going to start with Lyndon LaRouche. And LaRouche wrote a paper in 1999, called [“Prometheus and Europe.”](#) In this paper, he addresses the relationship of the mind which is able to apprehend a precise concept of reality, and the expression of that precise concept in language. And so, he says this:

“The essence of all great Classical art-forms, is a polyphonic interweaving of ironies, metaphor. The essence of poetry, is, that words as such could not contain the meaning of ideas. Relative to any literal statement



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*The geographer, wrote Cusa, sees himself in relation to the map he has created, as the Creator does to the whole world. Shown: “The Geographer,” by Johannes Vermeer (1668).*

in words, no matter how sincerely those words are chosen, reality is always ambiguous: the mere words leave something important out. It is not the reality itself which is ambiguous; it is the literal use of words which is always false to reality. Classical art corrects the error, to bring the idea corresponding to reality into the mind of the hearer, where the mere literal words could not. In poetry, as in all Classical art, the artist uses ambiguities about the use of not only words, but commonly known ideas, in order to impart to the mind of the hearer a sense of the reality which literal use of words could never accomplish.”

So he has this wonderful contrast between the domain of the poet, between what the mind *can* apprehend precisely, versus the poor ability of words to describe that. And then he says it a little bit later, in a wonderful way:

“Poetic ideas are generated, not from language, but, as Goethe did, or Keats, or Shelley, by absorbing the human cognitive processes’ experience of the real world. As Dante Alighieri showed, art is generated, as the expression of those ideas, by forcing the language to dance, as it may be possible to force it to do so. Language must dance to the tune set within a domain of the mind into which language itself could never intrude.”

One thing to say about that, which I think it really gets at wonderfully, is that art, and the experience of art, the experience of the hearing of the reading or the hearing of a poem, or of the performance of a piece of Classical music, the substance of that is the ability of the Creator to cause a motion in the mind which could then generate within the hearer that inexpressible idea. And it’s not the message, it’s not something which is contained in the words—there’s no message as such. It’s in the change in mind, the inducing in the other person or other people the same quality and state as was in the mind of the original composer. So that’s LaRouche.

Now, the second person I want to bring up is Percy Shelley, and you know, Shelley wrote this wonderful essay called “A Defense of Poetry,” where he examines poetry and the unique characteristics of poetry, which we just heard LaRouche express—he discusses the role of that in society, the role of poetry and poets in the progress and advancement of the human species; and you could say, in the human species as Vernadsky observed it and noted it.

I’m going to read a few excerpts of that work. The first one is the very ending, where Shelley says,

“The most unfailing herald, companion, and follower of the awakening of a great people to work a beneficial change in opinion or institution, is poetry. At such periods there is an accumulation of the power of communicating and receiving intense and impassioned conceptions respecting man and nature. The person in whom this power resides, may often, as far as regards many portions of their nature, have little apparent correspondence with that spirit of good of which they are the ministers.”

So that those who are these profound ideas, they themselves may not actually correspond to the profundity of those ideas.

He goes on: “But even whilst they deny and abjure, they are yet compelled to serve, that power which is seated on the throne of their own soul. It is impossible to read the compositions of the most celebrated writers of the present day without being startled with the elec-

tric life which burns within their words. They measure the circumference and sound the depths of human nature with a comprehensive and all-penetrating spirit, and they are themselves perhaps the most sincerely astonished at its manifestations; for it is less their spirit than the spirit of the age. Poets are the hierophants of an unapprehended inspiration; the mirrors of the gigantic

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—Lyndon LaRouche, “Prometheus and Europe.”

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shadows which futurity casts upon the present; the words which express what they understand not; the trumpets which sing to battle, and feel not what they inspire; the influence which is moved not, but moves. Poets are the unacknowledged legislators of the world.”

Now that’s the ending, it’s the punch line, but I did want to read a couple other, shorter passages from earlier in the essay, where Shelley really does address what you could call this “artistic thinking” or “artistic reasoning,” which isn’t reasoning in the normal sense, but he addresses this creative action of mind and the difference between that and logic, or that and words. So he says, in one case:

“Poetry, as has been said, differs in this respect from logic, that it is not subject to the control of the active powers of the mind, and that its birth and recurrence have no necessary connection with the consciousness or will. It is presumptuous to determine that these are the necessary conditions of all mental causation, when mental effects are experienced unsusceptible of being referred to them.”

So you have real experiences of mind which cannot be referred to the willful powers of reasoning or logic. And then I think he puts the point on it, just a little bit later:

“The functions of the poetical faculty are twofold: by one it creates new materials of knowledge, and power, and pleasure; by the other it engenders in the mind a desire to reproduce and arrange them according to a certain rhythm and order which may be called the beautiful and the good.”

And then this last one:

“All high poetry is infinite; it is as the first acorn, which contained all oaks potentially. Veil after veil may be undrawn, and the inmost naked beauty of the meaning never exposed. A great poem is a fountain forever overflowing with the waters of wisdom and delight; and after one person and one age has exhausted all its divine effluence which their peculiar relations enable them to share, another and yet another succeeds, and new relations are ever developed, the source of an unforeseen and an unconceived delight.”

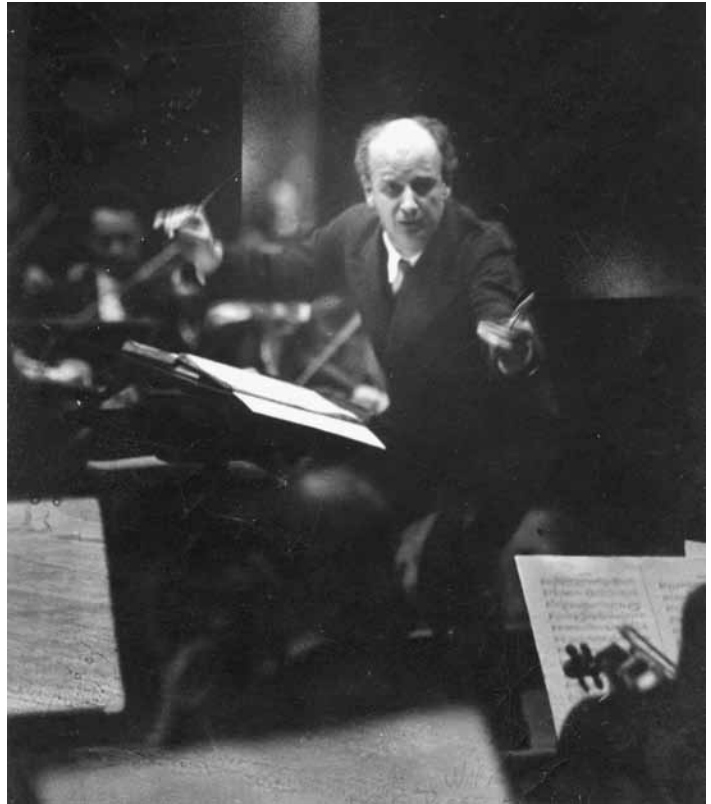
It’s kind of hard to recapitulate what he said, because the point is—even his prose is poetry, it’s poetic. But you do have what I find to be an extremely beautiful truth, which is that there’s some experience of the mind which cannot be planned as if the mind is tapped into something greater. And it’s the fact that the mind can interact with something greater than itself, where the senses cannot. And it’s the role of the poet, or the artist, or the musician, to actually bring that to society.

### **Furtwängler: Music and Improvisation**

The last person I’d like to bring in, is the personality of Wilhelm Furtwängler, who was a great conductor in the 20th Century. Furtwängler, in his writings about art, about music, and about conducting and performance, expresses a sentiment very similar to that expressed by LaRouche, and by Shelley, about the activity of creation, about the state of existence, or state of activity of the creative artist.

So I’ll start with his comments on the activity of creation. He says:

“Consider the situation of the creator, the composer. He starts from nothing, from chaos, so to say. He ends with the completed work. His movement towards this goal—the task of bringing form to this chaos—is via the path of improvisation. Improvisation is the basic form of all true music. Soaring out into space, a unique entity, the work takes shape as a kind of image of a spiritual event. As an independent, organic process, this spiritual event cannot have its nature and course laid



*Wilhelm Furtwängler, the sublime conductor, wrote: “Improvisation is the basic form of all true music. Soaring out into space, a unique entity, the work takes shape as a kind of image of a spiritual event.”*

down in advance, cannot be the product of a logical program or be conjured up by some other exercise of the human intelligence. It has its own inner logic, based on psychological laws, a logic no less compelling than any system of objective logic. In conformity with the laws of organic life, every ‘spiritual event’ represented by a work of music carries within itself the urge towards completion, fulfillment.”

That’s again, the expression of the creator being gripped by something which he has not yet experienced, he has not yet apprehended, and the creative artist, as composer, is himself compelled to bring a new idea into being and embody it in a work of art, embody it in language. And it’s this struggle to, as LaRouche put it, “make the language dance to the tune of mind.”

So that’s something he says about the activity of the creator. Now, one of the particular reasons I wanted to bring in Furtwängler, is that he was a composer; he did compose music himself, but his more important work was as a performer, as a conductor of orchestras; he also played the piano.

So what I want to do now is read from the same

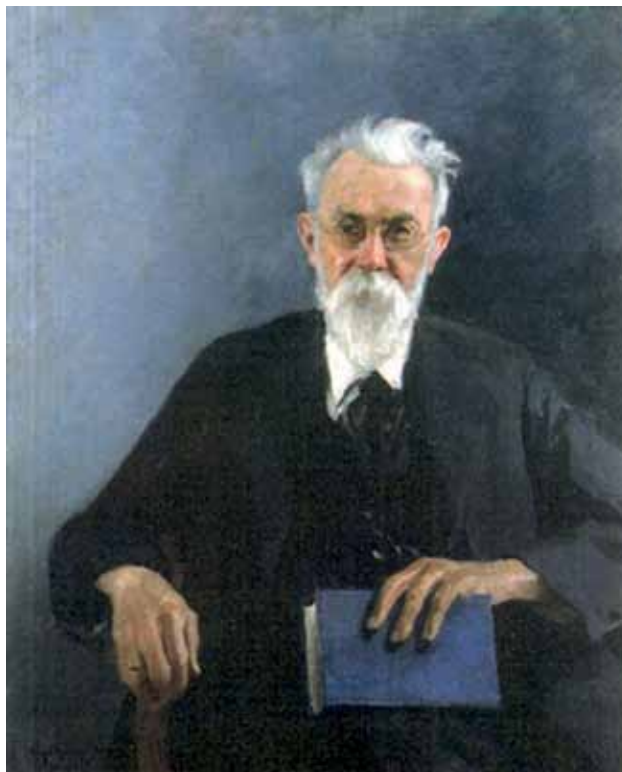
work, an essay called “The Principles of Interpretation,” I want to read a slightly longer passage where he addresses the task of the performer, and while I read this, I want people to think back to, not just the task of the performer as an artist, but also the task of the creative scientist like Kepler who’s approaching a scientific paradox.

“Such is the work seen from the creator’s point of view,” referencing the previous passage. But: “How does it appear to its interpreter, the performer? In the first place, it is a printed source,” a printed sheet of music. “It is not the performer’s task to portray the pattern of his own spiritual life but to follow in minute detail the course of a work, long since complete, created by somebody else. He

has to work backwards, as it were, not forwards, like the composers; contrary to the direction in which life evolves, he has to move from the outside to the inside, not vice versa, like the composer. His path is not one of improvisation, i.e., of natural growth, but one characterized by the painstaking assembly and arrangement of component parts. And whereas for the composer, these parts, as in any organic process, merge naturally into his vision of the work as a whole, which gives them their individual life and meaning, the performer, for his part, has to laboriously reconstruct such a vision for himself out of the separate parts at his disposal. . . .

“Since it is initially the separate elements, the component parts with which the performer has to deal, he naturally regards these as his most important data. What gave these elements life, however, the overriding vision of an artistic entity, is something to which he does not have direct access. . . .

“The question now arises of how the performer, with nothing at his disposal but the separate constituent elements of the work, is to proceed in order to achieve



Museum of V.I. Vernadsky, Moscow

*For V.I. Vernadsky, the creative activity of the human mind has a physical effect, in transforming the planet in a more powerful way than any other process we know of, including abiotic processes, such as earthquakes and volcanoes. (Portrait by I.E. Grabar, 1934.)*

a grasp of the work as a whole. First he seeks to assemble the parts in the most satisfactory way they allow, in his judgment, arranging them as attractively as he can, rather as he would arrange flowers in a vase. But there is, of course, a vital distinction between such an arrangement of parts, however skillful, and the organic driving force which has informed the composer’s act of creation. For all the performer’s ability, what he achieves can never be more than an assemblage of already available, ready-made elements. Never can it match the composer’s living vision of his creation, with its individual parts bonded together, as it were, by an inner logic sustained by the principle of improvisation.”

And then he goes on to ask the question of how the performer is to move from the assembly of parts to the re-creation of the original vision. And he ends up saying, well, we’ve reached the limit of words, we’ve reached the limit of language to express such a thing.

The real polemic in the essay is that there isn’t actually a difference between composer and performer; that all musical performance, and really, all discovery, is re-creation. All performance is improvisation. And with that, you have a process where both the performer himself, but also the audience, is put into the condition of creativity, is allowed an entryway into an act of true creativity. And in that sense, in the sense that Furtwängler is addressing it, thinking is never repetition. Thinking is always this organic activity of creation.

### The Performance

Now, these are Furtwängler’s words, and words and writing were not his primary skill, although it’s incredibly poetic. What I would like to do, for comparison, I’d like to demonstrate this by playing and comparing two



short clips of the same piece of music, with two different performances. The first I'd like to play is a performance by Furtwängler himself, of Schubert's *Ninth Symphony*, and LaRouche has referred to this, again and again, this particular performance from 1951, as one of the greatest creative achievements of mankind to date. So, what I'm going to do is play the beginning of this particular recording—it was recorded in 1951 by Deutsche Grammophon in Berlin; and then, for comparison, I'll play a clip of the same piece, performed by Bruno Walter—there's a lot to be said about Bruno Walter which we won't get into here; but hopefully you'll be able to get a sense of it. But it's a recording of Bruno Walter in 1946, recorded by Columbia Masterworks in New York City.<sup>1</sup>

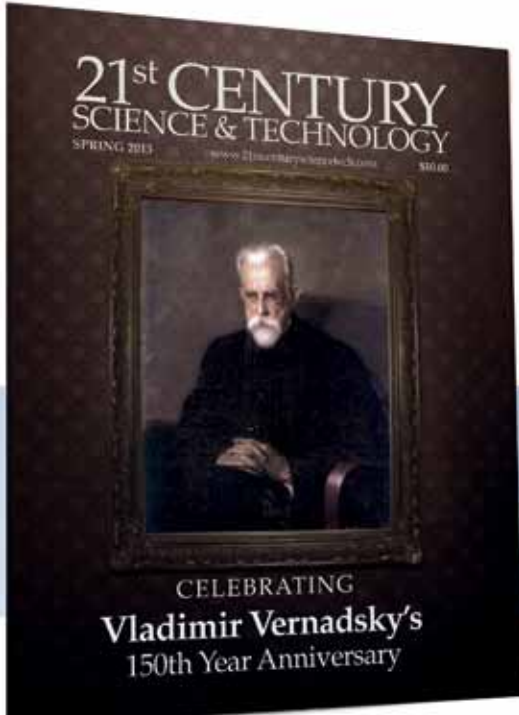
And the only way to describe them—one of those [performances] was alive and the other one wasn't. And it's the same notes, it's the same notes being performed. And I would encourage people to go back and listen to the two of them several times, but, with Furtwängler,

1. The reader is encouraged to listen to the musical examples presented in the video, at <http://larouhepac.com/node/31673>.

it's *gripping*. It's gripping, there's nothing that's ever the same, the mind is always being gripped, even just in the first—I played just over a minute—there's a transformation occurring; you sort of feel something ominous is about to happen.

And then, with Walter, it's just playing the notes. And they're not the same piece at all in that sense. Yes, it's the same pitches and so forth, but it's not the same: One is Schubert and one is not.

Just to conclude, I would now think back to Vernadsky: For Vernadsky it was undeniable that *this* kind of activity of the human mind has a *physical* effect, in transforming the planet in a way which is more powerful than any other process that we know of, including life, including abiotic processes like earthquakes and volcanoes, and so forth. But human cognition is a more powerful force in the planet and beyond than anything else we know of. And it really is these creative achievements, the development of this precise creative capacity of the mind to apprehend new thoughts, and to then express them, and communicate them, and develop society and develop the planet with them, that really is the substance of the progress of the species as a whole.



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