

William C. Jones

## V.I. Vernadsky: Scientific Thought as a Geological Force

*This is the edited transcript of the presentation of William C. Jones to Panel 3, “Principles of Science for Durable Economic Progress,” of the Schiller Institute’s June 18–19 Conference, “There Can Be No Peace Without the Bankruptcy Reorganization of the Dying Trans-Atlantic Financial System.” Mr. Jones is a former White House correspondent for EIR. He is currently a non-resident scholar of the Chongyang Institute for Financial Studies at Renmin University of China. One subhead has been added.*



Schiller Institute

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- Nobody and nothing under the natural laws of this universe impose any limitations on man except man himself.

- Not only the Earth, but the entire Solar System, and as much of the universe as he can reach under the laws of nature, are man’s rightful field of activity.

- By expanding through the universe, man fulfills his destiny as an element of life, endowed with the power of reason and the wisdom of the moral law within himself.

Let me start by quoting space engineer and former Peenemünder, Krafft Ehrlicke (1917–1984), a friend and collaborator with Lyndon LaRouche and Helga Zepp-LaRouche and a former advisory board member of the Schiller Institute:

If God wanted man to become a spacefaring species, he would have given him a Moon.

Ehrlicke also talked about what he called the Extraterrestrial Imperative. What kind of “imperative” was this actually? On the one hand, I think it had to do with man’s innate curiosity and desire to know more and to resolve conundrums, to probe the unknown. The Moon is close by. It seems that you could touch it, if you just had arms long enough. But it was also an “imperative” for Ehrlicke since the Moon also possessed considerable natural resources that would be of importance for life here on Earth. Ehrlicke was one of the first to seriously discuss and develop the notion of mining on the Moon.

In one of his most penetrating essays, “The Anthropology of Astronautics,” written in 1957, Krafft Ehrlicke declared the three “fundamental laws of astronautics”:

Vernadsky may be more familiar to you than Krafft Ehrlicke, or he may not be. Aside from Dmitri Mendeleev, scientific breakthroughs by Russian scientists have not been so well known in the West. Few works of Vernadsky’s prolific output have been translated, with the first French version of his early ground-breaking



Courtesy of Krafft Ehrlicke

Space pioneer and visionary Krafft Ehrlicke (1917-1984), a friend and collaborator of Lyndon LaRouche and Helga Zepp-LaRouche.

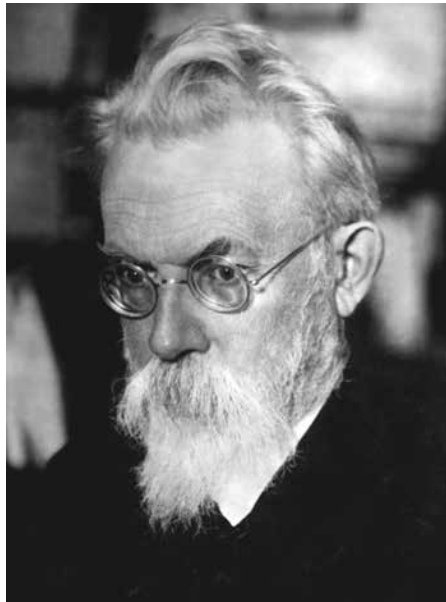
work, *The Biosphere*, being an early exception. And yet Vernadsky made major contributions—in crystallography, mineralogy, hydrology, cosmochemistry, and meteorology, among other fields. He can well be considered the founder of the field known as biogeochemistry, that is, the study of how living matter transforms the inorganic universe. There are photos of the work and staff at his biogeochemistry laboratory in St. Petersburg in the 1930s. He was the first Russian scientist to urge the development of nuclear energy in Russia almost at the turn of the previous century, shortly after atomic energy was discovered.

Vernadsky was also a historian of science, and his vision of scientific work would have great relevance for scientists today, particularly his understanding of the new role that science must play in economic development from the era that mankind had now entered. This is the way that Vernadsky viewed things in 1926:

There exists in the biosphere a grand geological force, perhaps even cosmic in nature, whose planetary nature is not taken into consideration in our concept of the cosmos, that is in our concepts based on science. This force neither appears as a new special manifestation or form of energy, nor may it simply be an expression of known energies. Nevertheless, the action of that force exerts a profound and powerful influence on the course of the Earth's energetic phenomena and consequently must undoubtedly have reverberations, albeit less powerful beyond the Earth's crust, in the existence of the planet itself. That force is the intellect of Man, directed and organized through the volition of man in his social existence.

Vernadsky later called this new era the era that we have entered, where science is primary, the era of the Noösphere.

Vernadsky was also a preeminent organizer of science. In Russia during World War I, he took the initia-



Archive of the Russian Academy of Sciences  
Vladimir Ivanovich Vernadsky in 1934.

tive to organize the Committee on the Study of the Natural Forces of Russia (KEPS), which would bring together existing knowledge of strategic war materials and gather new information about Russia's resources.

But I would like to focus today on Vernadsky's Ukrainian side, given the events that are going on in that country today. In particular, I would like to upset the apple cart of the myth the present Ukrainian government is pushing that they have never been a part of Russian culture and history, except perhaps as victims. Pushkin Street is now becoming Stephen King Street. Gagarin Street is now Neal Armstrong Street. Tolstoy's *War and*

*Peace* can no longer be taught in Ukrainian schools because it praises Russia's army in its fight against Napoleon. What a travesty! What a total impoverishment of culture for young Ukrainians! And what a distortion of real history. Unfortunately, we in the West have largely been following suit in our own restrictions on Russian singers and artists.

The St. Petersburg-born Vladimir Vernadsky loved Ukraine. His family had its roots in the Zaporizhzhia Cossack region of Ukraine. His parents were both born in Kyiv and spoke fluent Ukrainian, which Vladimir taught himself. His mother sang Ukrainian songs at home. Much of his creative and revolutionary work in the study of living matter was nourished in Ukraine and its flourishing natural endowments.

### The Ukrainian Academy of Sciences

While Ukrainian culture and language were often banned by the Russian Empire, Vernadsky and many other Russians supported Ukraine's desire for autonomy and the rights of its culture to develop. In 1918, Vernadsky, then at his Summer home in Poltava, Ukraine, on a sabbatical leave from St. Petersburg, due to the Bolshevik Revolution, received an invitation from a Ukrainian colleague to come to Kyiv to help organize the intellectual life of the region. Ukraine had been lost to Russia in the peace agreement signed by the Bolshevik government with Germany. Ukraine was thus under German occupation. But Vernadsky had al-



Archive of the Russian Academy of Sciences

*Vernadsky's biogeochemistry laboratory staff in the 1930s. Vernadsky is in the second row, center.*

ready participated in discussions earlier in St. Petersburg with Ukrainian colleagues concerning the possibility of creating a Ukrainian Academy of Sciences as a part of the St. Petersburg Academy. Vernadsky accepted the invitation.

He himself had done extensive studies of the history of the academy movement in France, in America, and in Russia. His view, however, was that in this new era, when scientific thought had become a geological force, a different conception of the academy was required. It must not simply be a gathering of noted scientists coming together to discuss scientific questions, but rather must serve as the basis of [what we might call] a “Manhattan Project style” mobilization of the entire intellectual forces of the nation to lift the country to a higher level.

His proposals envisioned the creation of an autonomous academy, which would have the full financial backing of the government, but whose faculty would be self-selecting and empowered to determine its direction and curriculum. Under it would be a National Library that would accumulate all the available intellectual material vital for the life of the country, in all languages—books, manuscripts, musical scores, unpublished literary remains of important intellectuals, etc. It must incorporate the works of world culture and be open to the world. At the same time, there must be set up studies of Ukrainian literature and culture and a commission appointed for the creation of a dictionary of the Ukrainian language. The library must be open to all and free of charge.

The academy project would also subsume a national program of education and research—an agronomical institute, a chemical laboratory, an institute for biologi-

cal studies, a meteorological observatory, a mineralogical museum, and a museum of history. Vernadsky also created, as he had in Russia, a study for the productive forces of Ukraine. The proposal for the creation of the Academy was accepted by the government, and Vernadsky was elected by the faculty as its first president.

One must keep in mind the instability of the political situation in Ukraine at the time. During the period of the organization of the Academy, 1918–1920, there were more than three governments. When the Germans left after their defeat in the West, a radical nationalist government took over

in Ukraine, later to be overthrown by the Bolsheviks. In addition, like today, there were a number of Western nations hovering around Ukraine, waiting to see who would get the choice bits of this heartland country—France, Britain, Poland, Romania, but especially the British were predominant, as Vernadsky himself indicated.

But the Academy lived on through this political turmoil as did Ukraine, which then became a part of the Soviet Union. Vernadsky also brought in people from the Russian Academy to help with the organization of the Ukrainian Academy, and given the way that Ukrainians during the Russian Empire had been relegated to simple “Ukrainian studies,” the bulk of educated scientists were Russian. Vernadsky would use them, initially, while preparing Ukrainian aspirants that were beginning to come into the science fields in education. One can even say that the basis of Ukrainian nationhood had been laid by an individual who is the foremost representative of Russian science.

If Ukraine could return to this tradition today, it would help to undo the damage that has been done by the Anglo-American “divide and conquer” policy, which has pitted Ukraine against Russia in NATO’s proxy war.

The Ukrainian Academy lives today as does the National Library of Ukraine, which still bears the name of Vernadsky. Vernadsky’s picture, as far as I know, still graces the 1,000 hryvnia bill, the currency of Ukraine, although someone has now proposed that he be replaced by a picture of Ukrainian fascist icon Stepan Bandera—another piece of insanity coming from a rather discombobulated nation.

For us, the lesson must be to return to our own best

traditions, which are also being subject to a similar “cancel culture” campaign similar to the one that has seriously disrupted the sanity of the Ukrainian nation. We had a “Manhattan Project” style science program in the 1960s under John F. Kennedy, in which the objective of sending a man to the Moon and returning him to Earth became the single objective of our leaders, our educational system, and our scientific institutions. This created, in turn, a tremendous sense of optimism among the population. We lost that and we have suffered dearly because of it. We can read the dismal results of it every day in our papers.

But to achieve that today, we must reject the small-mindedness of our present political leaders. Other nations are following this example, China in particular, most assuredly, and so is Russia, albeit under oppressive circumstances created by the West. If we try to cut off trade and to restrict the exchange of scientific information and conduct a policy of virtual technological apartheid against China



Painting by Krafft Ehricke

*A nuclear-powered freighter concept for industrialization of the Moon.*

and other nations that want to develop their own scientific capabilities, we violate everything that actually made America great.

We must go back to the Moon, but not as some imperial Colonel Blimp who hopes to plant the flag and conquer it for the motherland, but as a representative of humanity on the move in collaboration with other spacefaring nations, including China and Russia—and with the aim of making *all* of mankind a spacefaring species.

China has just produced a geological map for exploiting the resources of the Moon, thanks to the efforts of the head of the Institute of Geochemistry, Ouyang Ziyuan, the father of China’s Chang’e lunar program.

Here, we have two paintings—one, a Moon freighter, painted by Krafft Ehricke. And another, based on a drawing by Krafft Ehricke, who was too ill with leukemia to finish it himself, so he sent it to a colleague of Lyndon LaRouche, Chris Sloan, to paint it. This is Selenopolis, Krafft’s city on the Moon. Let’s get around to building it!



Painting by Chris Sloan

*The fusion-powered Selenopolis, Krafft Ehricke’s concept of a city on the Moon that would establish mankind’s first polyglobal civilization.*