The "Greening" of Vladimir Vernadsky:

How The Russellites Sabotage Science

by William Jones

While the name Vladimir Vernadsky is still not as widely known here in the United States as it should be, given his prominence as one of the greatest scientific thinkers of the last century, the prevalent view of Vernadsky is largely based on a fraud perpetrated by the acolytes of that Malthusian genocidalist, Bertrand Russell, whom economist and statesman Lyndon LaRouche so aptly labeled the most "evil man in this century." To the extent Vernadsky is known within the American scientific community, he is largely seen as some sort of early ecological guru. The fraud of this view, tragically, has also become prevalent within Russia itself, where there is less excuse for it, as Vernadsky's works have been widely publicized in his native language. His name is often equated with that of wacko Gaia worshipper, James Lovelock, who belatedly also labeled himself a "Vernadskyian," although Vernadsky's world-view was, in fact, diametrically opposed to that Greenie mystic.

While Vernadsky was a natural scientist, who provided a solid scientific basis to the notion of the "biosphere," so much abused these days by the lunatic Greens, he saw the productive activity of man, a result of the biosphere, but transforming it into a higher state, as the most important element in its continued development. The stage of the biosphere characterized by the intellectual activity of man Vernadsky called the noösphere (*noös* is Greek for *mind*). Unlike the Greenies who believe that mankind should shut down its industrial activity in order to become "one with nature," Vernadsky believed that it was precisely man's creative ability to develop his technology, to develop new ideas resulting in productive breakthroughs, that provided man with essentially "unlimited resources." While insisting that such advances be implemented with scientific rigor, he was invariably opposed to placing restrictions on continued technological progress. Indeed, without such progress, Vernadsky knew the human race would quickly be on the road to extinction.

Now on the occasion of the 150th anniversary of his birth, it is fitting that we set the record straight and expose the fraud which has been imposed on an unknowing public by the Greenie acolytes of Russell and his cohorts.

Who Was Vladimir Vernadsky?

Vladimir Ivanovich Vernadsky was born in 1863, the son of economist Ivan Vasilievich and Anna Petrovna Vernadsky. The elder Vernadsky had been instrumental in the movement which led to the freeing of the serfs by Alexander II in 1861. He was also instrumental in introducing the works of the anti-Malthusian American economist Henry Charles Carey to the Russian intelligentsia, works which caused great enthusiasm among leading Russian economic circles. Carey's writings were rapidly

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Over the door of his office, Vernadsky kept the picture of George Washington that had always hung in his boyhood home.

translated into Russian. Young Vladimir, however, was more attracted to science than to economics. A portrait of George Washington graced his boyhood home, and later, the same portrait hung in his laboratory office. Abraham Lincoln was characterized by Vernadsky as a "hero for all times," paraphrasing a famous work by Russian writer, Mikhail Lermontov, "A Hero for Our Time." Vernadsky became acquainted at an early age, thanks to his father, with the work of the great 15th century scientist, Cardinal Nicholas of Cusa, whom Vernadsky, as a young professor, would laud in his lectures on the history of science, as the founder of modern science, leading into the Renaissance:

> One of the predecessors of the ideas of Copernicus was Cardinal Nicolas of Cusa (1401–1464) to whom I have previously referred. The son of German peasants, a faithful and passionate representative of the Catholic Church, he was one of the most original and prodigious minds of his time. In his works we find the seeds of a variety of ideas that have since become a part of contemporary thought. He died in 1464 soon after the discovery of printing, and his works were left in manuscript form, threatened with the same fate as was common with many of his predecessors, becoming known only much later, when all direct living contact with them had disappeared. But the works of Cusa avoided this fate. He was published 40 years after his death, but before his direct influence had waned. The first (now extremely rare) edition appeared in Rome in 1501. It was the first appearance in human thought since the ancient Greeks of the representation of the Earth turning on its axis, and revolving around some point in space, which Cusa considered to be, not the Sun, but rather a certain pole of the Universe… We see everywhere the influence of these ideas of Cusa, with which Copernicus was also acquainted. The significance of the works of Cusa was also seen in other areas of thought as well, and his the works are continually cited, primarily by the more innovative spirits, throughout the course of the 16th and 17th centuries.[1]

Archive Collection, Russian Academy of Sciences

Vernadsky, here in Prague in 1926, cannot cease to examine that phenomenon of life that so engaged his life's work.

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Vernadsky (on the right) photographed here together with other members of the left faction of the Russian Duma.

Studying the work of Alexander von Humboldt, particularly Humboldt's epic summary of the science of his day, *Cosmos*, Vernadsky devoted himself to the field of science as his best means of contributing to the progress of man, specializing in mineralogy and soil science, and later geochemistry. While maintaining a clear political engagement all his life, he felt that the progress he was making in the development of science represented his greatest contribution to his country and to the world. When the Bolsheviks took power in Russia, Vernadsky, one of the founders of the Constitutional Democratic (Kadet) Party traveled to Ukraine, still under the Whites, in order to avoid arrest. When he finally decided in 1921 to return to work in Bolshevik Russia where the Kadet Party was now banned, this put an end to any direct political activity on his part, although he would exert a great deal of influence with regard to science policy in the Soviet Union. Making his major discovery in the early 1920s of the inexorable role of life in the development of the Earth's surface, Vernadsky went on to make major breakthroughs in a variety of related fields, particularly in mineralogy and soil science, and created an entirely new field of science—biogeochemistry. Vernadsky also became the first person in Russia in the 1920s to lobby for a major research program for developing atomic energy.

1. Vernadskii, V.I. "Izbrannye trudy po istorii nauki" *Nauka*, Moscow, 1981. p.101.

Vernadsky is credited with the most comprehensive elaboration of the notion of the biosphere. His discovery of the unique quality of life to rapidly envelop over an entire area of the globe once it appeared on the scene, came to Vernadsky in his self-imposed exile in his beloved Ukraine during the period of the Russian civil war in the early 1920s. Vernadsky was astonished at first by the speed with which life proliferated and he took it upon himself to measure that rate. In the chaos of the Russian political world following the Bolshevik Revolution, Vernadsky also found solace and hope in his discovery of this elemental force of life to rapidly expand and proliferate, a force which he felt ultimately characterized the universe as a whole, including man's consciously directed social and economic development. Later, in 1939, Vernadsky would write:

> It is evident that the phenomenon of the expansion over the entire surface of the planet by a single species developed broadly in the case of aquatic life such as microscopic plankton in lakes and rivers, and with some forms of microbes, essentially also aquatic, on the thin film of the Earth's upper surface, and was disseminated through the troposphere. For larger organisms, we observe this almost in full measure with certain plants. For man this begins to appear in our time. By the 20th Century the entire globe and all the seas have been encompassed by man. With the rapid progress of communications, mankind is able to maintain continual contact with the entire world, and in no place is he alone or helplessly lost in the immensity of Earth's nature.[2]

In the same way that life becomes a predominant force in the lithosphere, bringing to it new processes which enrich and enhance it, so too does man's productive activity become an element in the biosphere, enriching and enhancing its productivity. This was characterized by the increase of energy throughput occasioned by man's activity and by the ability of man to support ever more efficiently an ever-increasing population. This is due to man's development of technology, a result of his noetic activity. And, placed on the cusp of a new century with the discovery of the atom, Vernadsky felt that the rate of development of technological progress was exponentially increasing. Writing in the 1930s, Vernadsky states:

> In the course of the last half millenium, from the 15th to the 20th Century, the development of man's strong influence over his surrounding nature and his comprehension of it, continued apace, growing ever more powerful. During this period the entire surface of the planet was encompassed by a single culture: the discovery of printing, a knowledge of all earlier inaccessible areas of the globe, the mastery of new forms of energy—steam, electricity, radioactivity, the mastery of all the chemical elements and their utilization for the needs of Man, the creation of the telegraph and the radio, the penetration into the surface of the Earth to the depth of one kilometer by boring, and the ascension of men in aerial machines to a height of more than 20 kilometers from the surface of the Earth, and of mechanical devices, to a height of more than 40 kilometers. Profound social changes, having been given support by the broad masses, thrust their interests into the first rank, and the question of eliminating malnutrition and famine, became a realistic option that could no longer be ignored.[3]

These words of Vernadsky are a far cry from any "Green" manifesto, which one would expect from his depiction as a proto-ecologist.

Archive Collection, Russian Academy of Sciences

Much of Vernadsky's legacy lies in numerous manuscripts now preserved by the Russian Academy of Science.

Vernadsky's Outlook

Vernadsky was well aware that his new conception of the biosphere was a ground-breaking one. He also knew that it required a larger audience in order to achieve its full import. While his first major work on the topic, *The Biosphere*, was quickly translated and published in French in 1929, the publication of his other writings would take a longer time to appear in translation, if at all, particularly with regard to an English translation. By the 1930s, Vernadsky was working on a series of papers, under the general title "Problems of Biogeochemistry," which summarized his mature views on the role and meaning of the biosphere and on man's increasingly preponderant role

2. Vernadsky, V.I. "Scientific Thought As A Planetary Phenomenon," *21st Century Science & Technology,* Spring-Summer 2012. p. 19.

3. *Ibid*., p. 30.

G. Evelyn Hutchinson was a member of that stable of characters who followed Bertrand Russell's population-control agenda.

in its development. He was particularly anxious to have these papers published in English, to make the English-speaking scientific world fully aware of his new conception of man and the universe.

The presence in the United States of Vernadsky's son, George, and of his daughter, Nina, both of whom had emigrated after the Bolshevik Revolution, put them in an ideal position to foster knowledge of their father's work here, even as it was taking shape in Russia. Also at Yale was a young Russian professor, Alexander Ivanovich Petrunkevitch, the son of one of Vernadsky's political mentors and close collaborators in the Kadet movement, Ivan Ilyich Petrunkevitch. Alexander Ivanovich had also been a former student of Vernadsky, and, after his emigration, became a zoologist at Yale, specializing in the study of spiders.

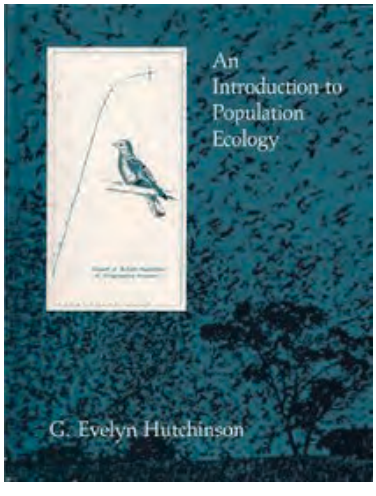
George Vernadsky was a professor of history at Yale University. Also at Yale was a British geologist and limnologist named G. Evelyn Hutchinson. Hutchinson was something of a typical by-product of the inter-war period at Britain's institutes of higher learning, particularly at Cambridge, where Hutchinson received his education. This was at the time a hotbed of Darwinism, Malthusianism, and philosophical reductionism. Names like Julian Huxley, J.B. Haldane, Bertrand Russell, anthropologist Gregory Bateson, as well as novelist, H.G. Wells, are prominent in this context. Bateson and Haldane were particularly close friends of Hutchinson at Cambridge. What united this crowd was their commitment to Darwinism and to a neo-Malthusian world outlook, which has always remained at the heart of the British imperial world-view.

Vernadsky early realized that Malthus's predictions were fundamentally flawed.

The position of Malthus, the classic spokesman of zero population growth, is too well known to dwell on here. But also Charles Darwin, who essentially viewed man as another form of beast, somewhat like a clever ape, took his cue from the work of Malthus. As he himself admits, it was a reading of Malthus's *An Essay on the Principle of Population* which prompted Darwin to compose his *Origin of Species*. Vernadsky had during his student days encountered the work of Pastor Malthus on population, and rejected it outright. Referring to Malthus' fundamental thesis, Vernadsky writes:

> Malthus doesn't realize that his fundamental results lead to entirely different conclusions. You might say that they are simply not true, because he did not take into consideration the fact that, estimating accurately the long-term growth of human population geologically, as regards food and the necessities of life, the expansion of plant and animals comprising it, must inevitably increase with greater force and speed, expressing a *more rapid* rate of reproduction, than that of the population. It's necessary to always have this correction in mind. Historically, it is only the irrational elements in our social system that make it difficult to clearly observe the effect of this natural phenomenon.[4]

Man is capable of creative thought, said Vernadsky. And thanks to this capability, he succeeded in developing in the material world around him new sources of energy, the latest example of which, in Vernadsky's day, was atomic energy. Because of this unique noetic capability, man succeeds in moving to energy sources ever more potent, ever more dense, from fire, to coal, to oil, to nuclear. The development of man is characterized, therefore, by increasing energy-density, or more specifically, energy-flux density. Because of this creative ability, man, in contrast to all other species, was not facing limits to growth, but was capable of continually



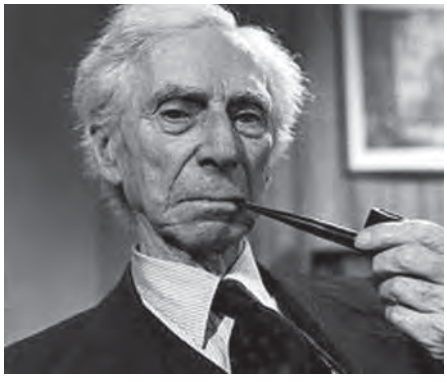
Hutchinson created the field of "population ecology" which treated man as simply another animal species.

4. Vernadskii, V.I., *Khimicheskoe stroenie biosfery zemli i ee okruzheniia. Nauka.* Moscow. 2001. p. 302. (emphasis added)

developing new resources which could support an ever-expanding population. Verandsky's rejection and unequivocal refutation of the arguments of Pastor Malthus early in his career was no aberration, as the Greenies would have it, but rather the hallmark of his fundamental philosophical and scientific outlook.

The Russellites

But Malthusianism was something of an endemic philosophy for the British Empire, dedicated to the preservation of its hegemony over world political and economic developments, and was widespread at places like Cambridge and Oxford. One of the key representatives of the Malthusian viewpoint was Bertrand Russell, who touted himself a mathematician and philosopher. Never one to conceal his views, Russell was quite open about his genocidal policies. Writing in a 1954 article published in *Crux*, the journal of the Union of Catholic Students of Great Britain, entitled "Birth Control and World Problems," Russell explains his view:



Bertrand Russell's genocidal policies made him in the words of Lyndon LaRouche "the most evil man of the century."

> Opponents of birth control make much of possible improvements in agricultural production either by new methods or by irrigation of deserts. What they refuse to face is that there is a limit to what can be done in this way, whereas there is no limit to the increase of geometrical progression. If the population of the world were to continue to increase at a constant rate, however slow, there would in time be only standing room, and no land whatever would be left for food production. Sooner or later therefore the increase of population must cease. Shall the cessation be brought about by war, by pestilence, or by starvation? No other possibility exists for the opponents of birth control—unless indeed, they were to advocate large-scale sterilization, which they find even more abhorrent.

Later, Russell (an early proponent of nuclear war against the Soviet Union) and his circles would help to spread the virus of his misanthropic world-view to an entire generation of Soviet scientists under the aegis of such "collaborative" "scientific" organizations such as the Pugwash Conferences and the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria. Russell would utilize the danger of "nuclear winter" in order to brainwash scientists about the need for a no-growth, "green" agenda. While Vernadsky was not alive when Russell wrote that particular tract, he was quite aware of the general nature of Russell, who during the 30s was touting himself as an interpreter of the "philosophical implications" of Einstein's relativity theory. Writing in his diary in 1938 with regard to A.E. Fersman, a protégé and collaborator, whom he often chided for his lack of political courage, Vernadsky commented: "A.E. belongs to that type of scientist who feels *his* view of nature is so great, that he does not notice the paltriness of that 'view' when juxtaposed to the real greatness of nature itself, like B. Russell."

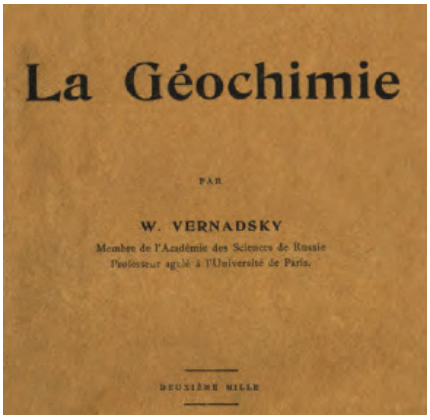
But Russell's views were rather mainstream for British intellectuals of an "imperial" outlook. And G. Evelyn Hutchinson was a man of the same mold. So at Yale, something happened to the project of publishing Vernadsky's works in English. Hutchinson was given a major role in the editing of Vernadsky's writings. Hutchinson created a field of dubious scientific worth called "population ecology" or "mathematical ecology." While his scientific work in that field was largely directed toward the populations of animal species, he, like Darwin, extrapolated his findings in the animal world to the world of man, warning that limits must be imposed on the growth of the human population. His "niche theory" of evolution described how each species, including man had to find its "niches" in this world of competition for Lebensraum and resources. Sadly, however, each species was relegated to its own particular "niche," beyond which it could no longer progress. As a professor at Yale, Hutchinson would go on to create a whole gaggle of ecology freaks, including biologist E.O. Wilson, Thomas Lovejoy of the World Wildlife Foundation, and many, many others. Because of his widespread influence, Hutchinson is characterized as the "father of ecology," although he himself attributed that title rather to Charles Darwin.

The Fraud

Already during his time at Yale in the 1930s, Hutchinson had learned of the work of Vernadsky, probably from his friend and colleague Alexander Petrunkevich. While Hutchinson didn't know any Russian, he had obtained a copy of the 1929 French edition of Vernadsky's *The Biosphere* and had his students read sections of it in his class. Hutchinson saw the possibility of using aspects of Vernadsky's work for his own purposes while suppressing Vernadsky's own world-view. Given Hutchinson's reductionist view of man, Vernadsky's idea of the noösphere and the role of human creativity in overcoming

"limits to growth," even reflected in the more focused monograph, *The Biosphere*, was absolutely anathema to him.

Hutchinson had studied limnology at Cambridge during the post-World War I period in England, where the eugenicist movement was having its heyday. Evelyn imbibed his zero-growth philosophy literally from mother's milk. His mother, Evaline, a radical feminist, was an early adherent of sex psychologist Havelock Ellis, and a close friend of eugenics matron, Margaret Sanger, who fled to England from the United States to find more fertile ground for her anti-human philosophy.



Vernadsky's lectures on geochemistry at the Sorbonne were published in French in 1924.

The Hutchinsons were an integral part of the Cambridge social circle, which included the Darwins, the Huxleys, the Batesons and the Haldanes. At Cambridge, Hutchinson would strike up a close relationship with J.B. Haldane, who would later provide the backing of Western science for the checkered career of Alexander Oparin, the chief antagonist of Vladimir Vernadsky's views in post-war Russia.[5] Here he also struck up a friendship with Gregory Bateson, with whom he would collaborate at Yale in laying the basis for the counter-culture movement of the 1960s. When Bateson hooked up with the American social anthropologist Margaret Mead, Hutchinson would also become her friend and mentor, and in fact, her copy editor. Hutchinson was also close to British author and radical feminist, Rebecca West, who was for a time the wife of H.G. Wells.

Hutchinson received a professorship at Yale in 1928 and Yale would ever remain the lair from which he would spin his web of deviltry and deceit. He also served, together with Mead, on the staff of the American Museum of Natural History in New York. Hutchinson, Mead, and Bateson, as well as cultural anthropologist Ruth Benedict, would all participate in the conferences organized by the Josiah Macy Foundation in 1946, which were instrumental in creating the basis for the "alternative lifestyles" that would be foisted on America in the latter part of the 1960s, in the aftermath of the assassination of President Kennedy.

Editing Vernadsky

It was undoubtedly his connection with Petrunkevitch that brought Hutchinson into a position to influence the Vernadsky "legacy" in the U.S. Hutchinson, now retooling himself from limnology, the study of lakes, to biochemistry, was, because of his "expertise" in the field, given the task of editing George Vernadsky's translation of two of his father's papers in a series Vernadsky labeled "Problems of Biogeochemistry." Although George Vernadsky had translated both of these papers, Hutchinson would only publish the second of the two, and this heavily expurgated, in the *Transactions of the Connecticut Academy of Arts and Sciences* in June 1943. Hutchinson had thus begun a project of introducing an "expurgated" Vernadsky to the American public for the purposes of promoting his own genocidal agenda.

And what was Hutchinson's agenda? In December 1948, Hutchinson published a paper in *Scientific Monthly* entitled "On Living In the Biosphere." While he did not on this occasion try to drag in the name of Vernadsky, he clearly is starting to pave the way in that direction:

> Looking at man from a strictly geochemical standpoint, his most striking character is that he demands so much—not merely thirty or forty elements for physiological activity, but nearly all the others for cultural activity… We find man scurrying about the planet looking for places where certain substances are abundant; then removing them elsewhere, often producing local artificial concentrations far greater than are known in nature. Modern man, then, is a very effective agent of zoogenous erosion, but the erosion is highly specific, affecting most powerfully arable soils, forests, accessible mineral deposits, and other parts of the biosphere which provide the things that *Homo sapiens* as a mammal and as an educatable social organism needs or thinks he needs. The process is continuously increasing in intensity, as populations expand and as the most easily eroded loci have added their quotas to the air, the garbage can, the city dump, and the sea.

Elsewhere in the same paper he writes:

> The population of the world is increasing, its available resources are dwindling. Apart from the ordinary biological processes involved in producing population saturation already known to Malthus, the current disharmony is accentuated by the effect of medical science, which has decreased death rates without altering birth rates, and by modern wars, which one may suspect put greater drains on resources than on populations. Terrible as these conclusions must appear, they have to be faced.

5. See article by Meghan Rouillard, "A.I. Oparin: Fraud, Fallacy, or Both?" *21st Century Science & Technology,* Spring 2013.

The whole Russellite program is concisely presented in these remarks. To bring Vernadsky into this mix required some serious elisions in the written record.

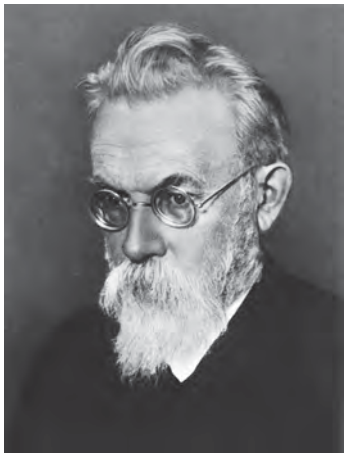
In the paper published in the *Transactions*, Hutchinson eliminated entirely Vernadsky's first paper in the series "Problems of Biogeochemistry," on the pretext that "its propositions have become well-known through the other writings of the author (Vernadsky) and of his students, and there is no need of a translation at the present time." This was quite a remarkable statement given that almost none of Vernadsky's works had then (June 1944) been published in English.[6] Hutchinson readily admits with regard to the second paper that "some abridgement has been found desirable for the sake of clarity, but it is believed that all the ideas set forth in the original have been preserved in the present text." Fat chance that that will happen!

Vernadsky, who knew of Hutchinson through his work on limnology and through his son's and Petrunkevitch's letters, was excited by the fact that his paper would be published in the United States. He was following the project closely through correspondence with George and expressed gratitude to Hutchinson for taking it on. But getting the final copy, he was somewhat taken aback by some of the cuts made by Hutchinson. Writing to George on September 15, 1944, Vernadsky expressed his concern:

> I'm very grateful to you and Hutchinson. I'm just not in agreement with the omission on page 502 of the reference to Dana [geologist James Dwight Dana], who established the empirical generalization of the role of the central nervous system in the course of geological time. The power of the central nervous system increased by leaps and bounds. You can observe this in any paleontology textbook.
>
> It's funny that when I was working on this question in Moscow, I found at the Moscow University, after many years, American journals in which Dana defended himself against the theologians.

While Dana at a late stage in his career accepted the basic idea of evolution, he believed (unlike Darwin) that the process of evolution had a directionality to it, leading to the development of man and characterized biologically, as Vernadsky notes, by the development of the central nervous system. Dana, like Vernadsky, held that evolution had a directionality culminating in man in an epoch characterized chiefly by man's mental activity, which Vernadsky called the *noösphere* and Dana *cephalization*.

This was by no means the only cut that Hutchinson had made in the Vernadsky paper. He effectively eliminated almost all discussion of Vernadsky's seminal remarks on the work of Louis Pasteur on chirality and Vernadsky's idea of different "states of space."[7] Not unexpectedly, Hutchinson also eliminated portions of the manuscript in which Vernadsky expressed his unlimited confidence in the continuous progress of man's development through his creations of new ideas leading to technological advances. What remained was only a thin carcass of the real Vernadsky.



Vernadsky's entire philosophical outlook was imbued with the knowledge that the mind of of man was a new and powerful geological force in the universe.

Soon afterward, in January 1945, Vernadsky's "Notes on the Noösphere" were published in *American Scientist* without such elisions. It is probable that George, who was sincerely intent on publishing his father's work in the United States and was aware of his father's concerns about the first translation, made sure that Hutchinson did not take a scalpel to this important statement. The "Notes on the Noösphere" also contains an extensive reference to the work of James Dwight Dana.

Creating a Green Movement

Of course, in 1944, it was an uphill climb in the United States, indeed, in the world at large, to introduce the notion of the genocidal population reduction program. The Second World War had done that all too effectively. "Population control" had been pretty much discredited by the Nazi program. And in the United States as elsewhere, there was a strong belief in the notion of scientific progress, similar to the belief so beautifully expressed in Vladimir Ivanovich's work at the time, specifically in his 1938 *Scientific Thought As A Planetary Phenomenon*. It would take a few decades before humanity would be prepared to accept these specious arguments in favor of its own demise.

The opportunity for introducing this "paradigm shift" in American society came in the 1960s. The brutal assassination of President John F. Kennedy and the initiation

6. The entire text of "Problems of Biogeochemistry, Part II" was published in English by *21st Century Science & Technology* (Winter 2000–2001). "Problems of Biogeochemistry, Part I" was also published by *21st Century Science & Technology* (Winter 2005–2006), utilizing the English manuscript copy of the text translated by George Vernadsky, and discovered in the Bakhmeteff Archives at Columbia University.

7. See article on Louis Pasteur, this issue, and Vladimir I. Vernadsky, "On the States of Physical Space" *21st Century Science & Technology,* Winter 2007–2008.

The brutal assassination of President John F. Kennedy was a decisive transformation of American culture away from its traditional notion of progress.

by President Johnson of that "long war in Asia" helped to plunge an entire generation of young people into a frantic search for "alternative life-styles." This was chiefly characterized by the hippie movement and its "back to nature" outlook. Here was an ideal opportunity to introduce on a broad scale those zero-growth ideas which had been anathema to an earlier generation.

In 1970, the "mainstream" scientific journal *Scientific American* devoted an entire issue to the theme of "The Biosphere." The introductory article was by none other than G. Evelyn Hutchinson. While he had not inserted Vernadsky's name in his 1947 diatribe, he would place it firmly in the center of this new effort to create a Green zero-growth movement. "The concept [of the biosphere] played little part in scientific thought," Hutchinson writes in his *Scientific American* piece, "until the publication, first in Russian in 1926 and later in French in 1929 (under the title *La Biosphère*), of two lectures by the Russian mineralogist Vladimir Ivanovitch Vernadsky. It is essentially Vernadsky's concept of the biosphere, developed about 50 years after [Eduard] Suess wrote, that we accept today."

The other articles in the magazine, dealing with the carbon cycle, the oxygen cycle, the nitrogen cycle, the role of agriculture, while written by different people, were also centered around the theme struck by Hutchinson: The activity of man on the planet is creating an ecological disaster and must therefore be limited.

Hutchinson, of course, could not completely eradicate Vernadsky's concept of the noösphere, so he simply asserted that Vernadsky had been mistaken in his view of human development. At the end of his article, Hutchinson writes:

> Vernadsky, the founder of modern biogeochemistry, was a Russian liberal who grew up in the 19th century. Accepting the Russian Revolution, he did much of his work after 1917, although his numerous philosophic references were far from Marxist. Just before his death on January 6, 1945, he wrote his friend and former student Alexander Petrunkevitch: "I look forward with great optimism. I think that we undergo not only a historical, but a planetary change as well. We live in a transition to the noösphere."
>
> By noösphere, Vernadsky meant the envelope of mind that was to supersede the biosphere, the envelope of life. Unfortunately the quarter-century since those words were written has shown how mindless most of the changes wrought by man on the biosphere have been. Nonetheless, Vernadsky's transition in its deepest sense is the only alternative to man's cutting his life-time short by millions of years. The succeeding articles in this issue of *Scientific American* may contain useful hints as to how this alternative may be brought about.

Two years later, in 1972, a newly constituted Club of Rome issued a report called *The Limits To Growth,* which depicted an even more drastic scenario. The report was published by the UN Commission on Environment and Development. The Russellite agenda was thus introduced at the highest level of government. And now there was a mass movement of disenchanted youth around which to organize for this genocidal program.

And Vladimir Ivanovich Vernadsky was made into a guru of this new movement as well. New Age geologist and entrepreneur John Allen, who was spending his time in the early 1960s in San Francisco's hippie stronghold, Haight-Ashbury, with beat poet William Burroughs and others of his ilk, came across a book by Hutchinson entitled *The Ecological Theater and Evolutionary Play,* which also referenced the work of Vernadsky. Allen quickly placed Hutchinson's Vernadsky on the banner of a series of half-baked projects, beginning with a hippie commune in New Mexico, called Synergy Ranch, and later an up-scale and alleged high-tech version of the commune, called Biosphere II, which he marketed as a predecessor to space colonization. Allen even succeeded in convincing some people from NASA, who had been bitten by the Green bug, as well as a number of otherwise serious scientists from Russia, that his up-scale hippy commune was the wave of the future in space exploration. Synergy Press also published the first

This Biosphere edition of the mainstream Scientific American was the first "shot across the bow" by the Greenie movement.

English translation of Vernadsky's *The Biosphere*—needless to say, in a heavily redacted edition.

James Lovelock, the so-called father of "climate change," with his thesis of Mother Earth, or Gaia, to whom mankind must bow in submission, also began to reference Vernadsky as his predecessor, even though he had no knowledge of Vernadsky before the 1980s.

As a result, to the extent Vladimir Ivanovich Vernadsky is known at all in the United States, he is widely seen in the form of Hutchinson's "ecological guru." *21st Century Science & Technology* and *Executive Intelligence Review,* both associated with the American statesman and economist Lyndon LaRouche, have taken upon themselves the task of introducing the real Vernadsky to the American public, to the American science community, and particularly, to the younger generation of Americans.

Vernadsky was one of the giants of science during the last century, a man whose ideas were often far ahead of his times. And science progresses by standing on the shoulders of its giants. Now when mankind is faced with the major scientific task of developing the new energy resources needed to support our growing population and of developing techniques here on Earth and in cosmic space for detecting and thwarting the threats that may face us from that region, as witnessed by the recent meteorite over Chelyabinsk, the thought—and spirit—of Vernadsky is more important than ever. By introducing the full depth of his scientific and philosophical achievements in the English language, we hope to provide American scientists with that giant, on whose shoulders they might stand from which to see a way forward for mankind, now enmired, in the worst financial crisis in history. Perhaps the optimism exhibited so strongly by Vernadsky, even in periods of repression and world war, may help to mobilize people today to begin to institute those needed changes which will enable mankind to launch a new era of growth and development in the "noösphere," and to help free a generation from that deadly mental illness known as "environmentalism."

Vernadsky Institute of Geochemistry and Analytical Chemistry

The Biogeochemical Laboratory founded by Vernadsky in 1929 now stands as the Vernadsky Institute of Geochemistry and Analytical Chemistry.