



RUSSIAN COSMISM: A UNION OF SPIRIT AND SCIENCE?

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The term "Russian cosmism" does not designate a school of thought that structured by theses, institutions or a precise program. Rather, the cosmists constitute a nebulous group of Russian authors of the 19th and 20th centuries, who have in common the idea of a union of the spirit and science, through utopian and grandiose visions. Two of them have particularly marked Russian history, Konstantin Tsiolkovsky and Nikolai Fyodorov.

On October 4, 1957, radio amateurs all over the world, for the first time, received a signal from space. It wasn't aliens on the loose, but Sputnik 1, the first artificial satellite in history, put into orbit by the Russians. This undeniable success of Soviet technoscience was of course also presented as a triumph of dialectical materialism. It was however forgetting in passing all that the Soviet aerospace owed to a man with conceptions very far from Marxism-Leninism— Konstantin Tsiolkovsky.

Tsiolkovsky (1857-1935) spent most of his life in Russia, in the remote region of Kaluga (he was nicknamed "the eccentric of Kaluga"). It is there, in a small and modest wooden house, that he laid the theoretical and technical foundations of aerospace. Today, all historians of science (even American) recognize Tsiolkovsky as the one who laid the scientific foundations of space travel. He also wrote several science-fiction novels, with the avowed aim of making the new generations desire to go into space. Among his readers were Valentin Gloukhov (who, along with Sergei Korolev, became a pillar of the Soviet space program), as well as Yuri Gagarin, the first man to go into space.

In order to make Tsiolkovsky a hero as a "brilliant scientist from the people" (a monument to his glory was erected in Moscow), Soviet propaganda had to make many aspects of his thought totally taboo—especially since for Tsiolkovsky space travel was not a goal in itself, but a means to the service of a project even more disproportionate—the perfection of humanity.

A Universe Full of Angels

Tsiolkovsky thought that God had created a universe in which all matter is also spirit (to be exact, Tsiolkovsky affirmed that he did not believe in God, but in a perfectly good, omniscient and omnipotent supreme being, who had created the world; which makes one think of the well-known joke of the Hellenists: it was not Homer who wrote the Iliad, but someone who had the same name as him). This conception (which he qualifies as panpsychist) means that the matter present everywhere in the universe is endowed in itself with a spiritual force, with a form of consciousness which makes it evolve

towards higher and higher forms: mineral, vegetable, animal, human, then...

Tsiolkovsky believed that to spread in space was the only way for humanity to ensure in a certain way its survival, to avoid an extinction of the human species in the event of terrestrial catastrophe (a position that certain very media-oriented scientists today share). But he added that man could only spread in space if he took in hand his own evolution and radically modified his own body, in order to adapt to extraterrestrial conditions (a concept that contemporary science fiction calls panthropy). To emancipate oneself from the Earth, implied for Tsiolkovsky, to emancipate oneself also from our animality (sexuality, mortality, need to eat and drink). Eventually, human beings would spread in the whole universe, and become "etheric" beings, magnificent and immortal (this transformation implying moreover the elimination of all the terrestrial life forms not reaching these standards of perfection).

In the eyes of the "eccentric of Kaluga," this transformation into "etheric" beings had already been accomplished by extraterrestrials. By exploring space, humanity would end up meeting these extraterrestrial "angels," living on heavenly planets. While waiting for this day, these "angelic" beings maintain the Earth, a planet that is not very evolved at the moment, in a sort of galactic quarantine. But they try nevertheless to communicate with us, to guide us, despite the gap that separates us. Tsiolkovsky himself said that he had communicated with these "space angels" (in the 1970s, some people reused Tsiolkovsky's theories to imagine a Russian version of the "ancient astronauts theory," according to which the ancient religions were inspired by visits from extraterrestrials).

Tsiolkovsky never really received an academic education. He was in all respects a self-taught man. This made his scientific work all the more impressive. But when he arrived in Moscow at the age of 16, he took advantage of the reading advice of an obscure librarian, and then quickly joined the group of young students that this librarian gathered around him. This man, who took the young Tsiolkovsky under his wing, was named Nicolai Fedorov.

The Resurrection of the Dead

If Tsiolkovski is the most recognized cosmist on the scientific level, Nicolas Fedorov (1829-1903) is the first of them. Totally unknown during his lifetime, he generally shared his thoughts only with a selected circle of companions. Two of his disciples published his writings after his death in a single book: *The Philosophy of the Common Work*. Unlike Tsiolkovsky, Fedorov always saw himself as a faithful member of the Orthodox Church. In his eyes, humanity had an important and active eschatological role to play in

the completion of the creation initiated by God. He thus conceived his thinking as Christianity, but Christianity in a radically reinterpreted sense. Christ had shown the way by resurrecting at Easter: Christianity was thus to be the religion of the resurrection of the dead, of the resurrection of the dead by properly human, scientific and technical means.

Nicolai Fedorov

For Fedorov, death is either a disintegration, i.e., a dissolution in multiplicity, or a fusion, i.e., a dissolution in unity (he considered the Holy Trinity, the unique God at the same time one and multiple, as the archetype of immortality). However, he also considered that disintegration and fusion are natural forces. Wherever he looked, he saw in the natural world only the reign of death. Fedorov insisted on the national and typically Russian character of this way of looking at nature. The romantic conception of nature was a fantasy of the urban bourgeois and "soil-less." The muzhik, on the other hand, knew that the taiga does not offer any gifts, and that survival is always conquered over murderous nature. By taking control of natural forces through scientific and technical means, humanity would be able to defeat death itself and resurrect all its ancestors. At this point, all human beings who have ever lived must be resurrected. For Fedorov, this is an absolute moral duty, a matter of filial piety towards those who have gone before us, and thanks to whom we exist. We must give life back to those who gave it to us. Reproduction, sexuality, death, suffering, eating, drinking, all these natural things will disappear when the living and the dead are regenerated in new and immortal bodies, having little to do with our present animal body (this rejection of the "animal body" of man is common to many cosmists). This regenerated and invulnerable mankind, and also very numerous, will be able to spread into space, to settle on other planets, and to make the universe a paradise (Fedorov envisaged that the planet Earth itself could become an immense spaceship, thanks to the control of cosmic forces). Such was the communal work envisaged by Fedorov.

The philosopher Vladimir Solovyov (1853-1900) noted, with a certain irony, that Fedorov's project was not a plan for the next thousand years, but rather a plan for the next ten thousand years. But if Fedorov suspected that his contemporaries would never take his ideas seriously, he had no doubt about their long-term feasibility. He believed that many peoples were dispersing and wasting their creative energies on war, democracy and capitalism. The realization of the common work required that mankind channel its forces and unite under an autocratic regime. This was, for Fedorov, the messianic vocation of the imperial throne of Holy Russia. The tsar, God's chosen monarch, was to unite all countries and peoples under his rule for the eschatological fulfillment of the common work.

The Desert will Become a Garden Again

A few years before his death, Fedorov was invited by one of his disciples to visit the Pamir Mountains. This extremely desolate region made a strong impression on him. He saw in the Pamir a symbol of both Mount Meru (the sacred center of the world in Hinduism) and the Garden of Eden (for Fedorov, all religions derived from the same *sophia perennis*—the cult of the ancestors), a land of origin of the Indo-Europeans, transformed into a desert by the ignorance and barbarism of men. The first task of the common work was therefore to turn the Pamir into a garden, to make life blossom again where death reigned, just as, by dispersing into space, regenerated humanity would fill a universe, hitherto filled with death, with life. This revived Pamir, the triumph of life and science over death and ignorance, was to become the center of a united world dedicated to the realization of the common work under the leadership of the tsar.

After having reviewed the thought of the two most important cosmists in history, a question naturally arises—what to make of this improbable muddle of ideas that are at least astonishing, if not frankly bizarre, and sometimes even a little unhealthy? Tsiolkovsky and Fedorov were certainly "sweet dreamers," but they were certainly not "lunatics." As an aerospace pioneer, Tsiolkovsky is undoubtedly one of the most important scientists of the 20th century. Fedorov, on the other hand, impressed some of the greatest minds of the Russian Silver Age: Tsiolkovsky, of course, but also Dostoyevsky, Soloviev, Tolstoy, Florensky, Vernadsky, Bulgakov, Berdiaev. However, among all these eminent scientists, philosophers and novelists, none of them really took up the strange philosophy of Fedorov's common work.

As we have already said, "cosmism" is not a school of thought, and there is no such thing as "Fedorovism." What these brilliant minds admired in Fedorov was not a system of thought or specific theses, but rather this will to rethink human progress in general, and scientific progress in particular, in a spiritual framework. Fedorov believed that science without spirituality and spirituality without science would both lead humanity to catastrophe. His philosophy of the common work, once brought back to its fundamental intuition, can thus be understood as a utopian vision aiming at avoiding the announced catastrophe. This is what, in Fedorov (as well as in the other cosmists), struck his contemporaries, and continues to be striking today—this vision of a union of spirit and science, in a creative and utopian act of synthesis, giving its legitimacy and its place to human activity, genius and progress, in the eschatological realization of the divine transfiguration of the cosmos. The cosmists were certainly very strange thinkers, but they have undoubtedly more to say to us than the transhumanists and the

fundamentalists who swarm us today.

Grégoire Quevreux currently teaches philosophy at the Institut Protestant de Théologie de Paris, and is completing a doctoral thesis on process theology under the direction of Professor Cyrille Michon. This article appears through the kind courtesy of [PHILITT](#).

[Featured](#): "Captured asteroid," by Andrey Sokolov; postcard, 1965.

