EDUCATIONAL TOURISM ON THE EXAMPLE OF RUSSIAN COSMIC SOCIETY AS A TOOL FOR FORMATION OF THE MORAL PLATFORM

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Abstract. The article examines the worldview of Cosmic society, it also reveals some outstanding discoveries. Questions of development, propagation and promotion of scientific and philosophical foundations of the Russian cosmism are raised. Examples of implementation of breakthrough ideas, projects and technologies offered by great thinkers, scientists and engineers (representatives of the Russian scientific school) are shown.

Key words: education and science, educational tourism, Russian cosmism, idea of development, sustainable development worldview, Russian cosmic society.

In accordance with the strategy for the development of tourism in the Russian Federation for the period to 2020 (Government Decree of May 31, 2014 No. 941-r), tourism is viewed not only as a source of financial income, but also as a powerful tool for educating and forming a moral development platform for civil society.

In the conditions of an acute crisis that has engulfed many regions the task is set to preserve the development of the system, both short- and long-term. This can be achieved through implementing reproducible breakthrough technologies and improving the quality of management, reducing the risks of social, economic, environmental growth and development [1, 2].

Sustainability of the development of the country, its regions, industries and enterprises cannot be achieved without competent staff. It requires the availability of trained personnel with fundamental and practical knowledge of the science of sustainable development. The society has entered a phase when security problems and development prospects are closely linked to the process of creating and implementing breakthrough technologies.

In this situation, recognition of the key role of education and science as an effective tool for modernizing society, economy and social sphere is required.

One such tool is educational tourism, which has become a phenomenon that has entered the everyday life of hundreds of millions of people. It is a kind of activity that is of paramount importance for modern society. Educational tourism is tourism for the purpose of learning, gaining new knowledge, and improving existing skills [1, 2, 4].

It is very important that many research societies pay attention to the development of tourism in Russia, for example, the Russian Geographical Society, the Petersburg Society of People’s Universities, the Moscow Pedagogical Society, the Russian Cosmic Society [1, 2].

The Russian Cosmic Society aims to develop and promote the scientific and philosophical foundations of the Russian cosmism worldview, as well as to implement breakthrough ideas, projects and technologies proposed by great thinkers, scientists and engineers, representatives of the Russian scientific school.

The emergence of the school of Russian Cosmism was a kind of response of Russian scientific thought to the challenge of “the inevitability of thermal death (end of) the Universe”, which was revealed to the world community after Clausius considered the principles of energy conservation and entropy growth. In essence, the works of Russian cosmism represent the search for solution to this global challenge [1, 2, 4].

The first of these was the work of the eminent thinker and philosopher N. Fedorov, “The Philosophy of the Common Cause” (1875), in which he stated that “human will only become Human when he defeats Death”.

Essentially, this work gave impetus to the search for new ideas for the development of Life as a cosmic phenomenon. In 1880 the famous work of S.A. Podolinsky “Human labor and its relation to the distribution of energy on our planet” was published [2].

The Secretary-General of the United Nations, in 1986, linked the definition of “sustainable development” to the growth of free energy on the planet and, thereby, actually supported the discovery of S.A. Podolinsky, made some 100 years before the adoption of the sustainable development concept by the UN. In essence, the
discovery of S.A. Podolinsky is the fundamental basis for sustainable innovative development. The failure to accept this foundation makes the question of sustainable development devoid of legitimate scientific grounds.

The development of the ideas of the eternity of motion in the Cosmos is contained in the philosophical and scientific works of the genius thinker K.E. Tsiolkovsky, who, considering the interaction of dissipative and antidissipative processes in the universe, comes to the conclusion about their reversibility and, as a consequence, the eternal youth of the Universe in infinite spatiotemporal continuum [1, 2, 5].

The discovery of periodic system of chemical elements made by the great researcher D.I. Mendeleev essentially showed that there are two interconnected movements coexisting — the process of dissipation (dissolution) and the process of antidissipation (synthesis) of chemical elements. These processes form a spiral motion of the eternal existence of matter in Time and Space, when the process of decay is replaced by the synthesis process, providing chemical basis for this cyclical existence.

In fact, virtually all the works of the outstanding scientist, philosopher and thinker V.I. Vernadsky are dedicated to description, analysis and synthesis of empirical generalizations that underlie the law of the cyclic development of the life of matter. Analyzing and synthesizing bio-geo-physical and chemical material on the phenomena of cosmo-planetary life throughout its lifetime, V.I. Vernadsky empirically reveals certain patterns [3].

Is there a physical principle that governs this process? Is it possible to find such a law of motion of a living system that is valid in all forms of its manifestation, however diverse these forms are? The answer to these questions was given by the distinguished scientist Erwin Bauer (1890–1937). He substantiated and proposed the principle of the existence of living systems, which he defines as the principle of stable disequilibrium. This principle says: “All and only living systems are never in equilibrium and perform, at the expense of their free energy, a constant work against equilibrium”. As a consequence of this principle, he “deduced” the basic phenomena of Life — metabolism, growth, reproduction etc.

E.S. Bauer, as V.I. Vernadsky, did not resort to the magnitude of entropy, but chose a different (and significant) variable, which he called “external work”. The principle of stable disequilibrium is a kind of “anti-entropic” postulate. Thus a living system must constantly complicate its structure and organization, determined by stretching the distance from the equilibrium [3].

One may wonder whether there is a law from which (as projections into particular coordinate systems) two differently directed processes follow: entropy growth (as formulated by Clausius) and free energy growth (E.S. Bauer, V.I. Vernadsky)? Such a law exists. Its author is also the outstanding representative of Russian cosmism — P.G. Kuznetsov [1, 2].

Russia has accumulated huge (cosmic scale!) potentials of hidden reserves in the fields of culture, science, philosophy and technology.

Of course, we cannot deny the heritage of the Western scientific school, including prominent thinkers and scientists, such as N. Cusanus, I. Copernicus, I. Kepler, G. Galileo, G. Leibniz, I. Kepler, I. Newton, I. Kant, G. Hegel, J. Lagrange, R. Mayer, R. Clausius, J. Maxwell, Ch. Darwin, K. Marx, F. Engels, A. Poincare, A. Einstein, M. Plank, E. Schrödinger, G. Kron, S. Hawking, R. Penrose and many others. This heritage has found its use in the development of worldview and scientific foundations for design of the cosmic future and management of sustainable development.

Each of these great thinkers made an invaluable contribution to the development of world scientific thought, a contribution that became the heritage of all humankind. It is necessary, but not enough, to use it in solving the fundamental problems put out by the Russian Cosmic Society.

Without taking into account the world’s philosophical and scientific heritage (as well as that of the Russian scientific school), it is practically impossible to resolve the fundamental contradictions facing the humankind, to overcome the world crisis and to ensure a transition to a new era of cosmic history. A synthesis of scientific knowledge about the cosmic laws of the system “nature – society – human” is required. This synthesis is the focus of the work of the Russian Cosmic Society.

**Russian Cosmic Society experience**

The projects developed in the Russian Cosmic Society are of a social and educational nature.

For example, the Russian Cosmic Society is developing a virtual educational game “Our Universe”, a game about the present and future of Russian cosmonautics. The game represents a virtual tour and contains educational content (similar to the content of the textbook on the course of astronomy). It is based on a fictional story of the Russian agency “CORONA”, beginning in the current times and going up to the XXIII century. It implies expansion of the game beyond the limits of virtual space: visiting excursions to the Planetarium etc. Consultants of the project: specialists of the industry Mark Serov, Ivan Moiseyev, Vladimir Pinchuk and others.

Main activities of the Russian Cosmic Society include:
Siberian Development 2018
IOP Publishing
IOP Conf. Series: Earth and Environmental Science 204 (2018) 012011  doi:10.1088/1755-1315/204/1/012011

— publishing activities; for example, the publication of the scientific and educational newspaper “Nature – Society – Man: Noospheric Sustainable Development” (http://sfera-razuma.ru/);
— organization of conferences, exhibitions, competitions, seminars, and other similar events; for example, XX International scientific readings dedicated to the memory of Igor Ivanovich Sikorsky (http://cosmatica.org/news/65-xx-mezhdunarodnye-nauchnye-chtenija-imeni-igorja-ivanovicha-sikorskogo.html) [5];
— All-Russian Prize of Children’s Literary Oeuvre “Flowing Lyrics” named after S.A. Yesenin (http://cosmatica.org/news/61-pesennoe-slovo-novye-golosa-rossi.html);
— promotion of the importance of professions in the field of cosmic research; for example, an exhibition in St. Petersburg “Higher and higher” (http://cosmatica.org/news/59-okrtytie-vystavki-vsyo-vyshe-i-vyshie.html);
— Round table in the Public Chamber of the Russian Federation “Cosmic frontiers of Russia. Youth and energy for a breakthrough” (http://cosmatica.org/news/55-kosmicheskie-rubezhi-rossii-molodezhi-energija-proryva.html) [5];
— assistance in revealing the domestic scientific and technological achievements in the cosmic field; for example, the educational course “A look into Cosmos: events, technologies and people of Russian cosmonautics” was developed (http://cosmatica.org/news/54-besplatnyi-obrazovatelnyi-kurs-po-kosmonavtike.html);
— promotion of active youth participation in research activities, the formation of creativity; for example, the Conference on cosmonautics among junior schoolchildren in the Moscow Palace of Pioneers (http://cosmatica.org/news/49-yunoe-buduschee-kosmosa.html);
— assistance in the field of development of cosmonautics and related sciences about nature and society, scientific creativity, implementation of the achievements of Russian science and technology in this field.

Today, the Russian Cosmic Society has become a platform for the noospheric and cosmic creativity of young people.

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