

*Dear Friends,*

*In this issue of our journal, we are revisiting the history of the development of the Arctic – this “land of icy horror,” according to the famous Norwegian explorer F. Nansen, which at all times has attracted the attention of many explorers and travelers. Today, we are offering you some historical documents concerning the foundation and the early years of the existence of the Aeroarctic International Society, which open up the little known pages of the chronicles of the Arctic traveling with the help of aerostats and dirigibles. In the early 20th century, the idea to apply these “airships” to study the vast Polar Regions was literally in the air but its implementation appeared to be quite risky, as evidenced by the tragic death of the Swedish engineer S. Andrée. Even though the grandiose plans for transarctic air traffic were not to be fulfilled, they gave a new impetus to the scientific exploration of the Arctic.*

*You can get a glimpse of the ancient, “preliterate” history of peoples and regions looking at the samples of rock art, which, in Russia, are found in many regions from the Kola Peninsula to Chukotka and the Khabarovsk Krai, in caves and niches, on vertical or horizontal rock planes and on single boulders. Like any other works of art, the pisanitsas call for an attitude of care. Regretfully, real life can be different: unorganized tourism often causes irreparable damage to fragile ancient “rock canvases.” The research conducted by Russian (from Moscow and Novosibirsk) and French archaeologists has shown that modern visualization techniques like making backup copies, panoramas and 3D-models allow virtual tours to any archaeological sites including those that are difficult to access as well as obtaining new data on old museum exhibits.*

*Our readers will be able to get in touch with a true “living” history of northern peoples, paying a mental visit, in company with Russian ethnographers, to the three intact sanctuaries of Chokhryn-oyka, a patron spirit of hunting, deer breeding and fishing and a most beloved and highly worshipped deity of the Northern Mansi. The Northern Mansi are the only large local group of the Ob Ugrians that has preserved the living tracks of traditional culture. Up to now, in case of need or disease, the Mansi, loaded with food and gifts, set off to their sacred places, which can be recognized by huge larch trees with dozens of knives wrapped in sacrificial cloth forced into them.*



*The age of modern humanity is tens of thousands years while the geological history of the Earth and Solar System as a whole counts billions of years. Basing on the study of the evolution of the terrestrial planets, Novosibirsk scientists have proposed an original hypothesis of our planet’s future, according to which in 1.5 billion years the Earth may become another Venus with conditions acceptable for life only in the narrow cloudy layer of the atmosphere at about 50 km from the planet’s surface. The reason for this catastrophic evolutionary transformation is a growth of solar insolation resulting from the Sun turning into a Red Giant. When the average temperature at the planet’s surface exceeds 40 °C, all higher life forms will perish and people will be able to watch the decline of the Earth’s biosphere only if they move to other planets.*

*Interestingly, there is a place on the Earth today that has conditions somewhat similar to those of the Venus. We mean the so-called “deep biosphere” – microbial communities of deepwater sediments featuring an almost complete absence of oxygen, a high temperature and a high pressure. On Lake Baikal, which is a zone of high tectonic activity, this deep biosphere “comes in touch” with the surface biosphere as the upward flows of gases and fluids carry along microscopic dwellers of the deep sedimentary layers. Among these thermophilic microorganisms, unique bacteria have been discovered producing an oil biomarker typical of coniferous plants (!) as well as nonculturable clones whose metabolism is anyone’s guess.*

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