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GLOBAL RISKS AND NON-RELIGIOUS ESCHATOLOGY: THE PROBLEM OF ESCHATOLOGICAL IDEAS OF MODERNITY RESEARCH

I. K. Vitiuk*

The article analyzes the eschatological model of ideas about the tragic prospects of human existence, as one which includes two large groups of research directions: religious and non-religious eschatology. It is stated that non-religious eschatology is considered to be the research area within which the role of global risks on a planetary scale is being explored on a basis of a scientific approach in analyzing the causes of a possible eschatological scenario for the development of earth history. In this case scientists pay attention to identifying the factors or objects that threaten to destroy mankind, and they also evaluate the likelihood of all-planetary disasters. Another direction of their search is to study the facts about global natural disasters that occurred earlier in the history of our planet. The author also notes that these scholars avoid the use of the concept of "eschatology" and its derivatives, using the concept of "global risks" instead. We suppose that such a predetermined desire of scientists, especially representatives of the natural sciences, to disassociate from generated throughout history by religious thought warnings (divination) about finiteness of not only human life, but also mankind overall because of supernatural factors.

The author emphasizes the necessity of thorough analysis of the works of so-called non-religious eschatology representatives by contemporary religious scholars in order to compare and summarize the various scenarios of human development, including those developed within various theological doctrines and religious philosophy.

To my mind, Global information field of the modern world leaves people with no chance to avoid realizing the global risks. Global threats of non-religious content that are considered potentially possible by scholars are highlighted in the article. It is stated that the global

* PhD in Philosophical sciences, Assoc. Prof, Grand PhD student
(Zhytomyr Ivan Franko State University, Zhytomyr, Ukraine)
irenevik@i.ua
ORCID: 0000-0002-2998-6323

information space of the modern world does not leave a person with the opportunity to be unaware of the global risks eschatological by nature.

Keywords: *Eschatology, Religious Consciousness, Eschatological Consciousness, Eschatological Ideas, Global Risks, Non-Religious Eschatology, Disaster Movies, A-Logic*

ГЛОБАЛЬНІ РИЗИКИ ЛЮДСТВА ТА НЕРЕЛІГІЙНА ЕСХАТОЛОГІЯ: ПРОБЛЕМА ДОСЛІДЖЕННЯ ЕСХАТОЛОГІЧНИХ ПОГЛЯДІВ СУЧАСНОСТІ

І. К. Вітюк

У статті аналізується есхатологічна модель уявлень про трагічні перспективи існування людства, як така, що включає дві великі групи напрямів дослідження: релігійну та нерелігійну есхатологію.

Указано, що нерелігійною есхатологією можна вважати напрям досліджень ролі глобальних ризиків планетарного плану на основі наукового підходу в аналізі причин можливого есхатологічного сценарію розвитку земної історії. Науковцями в даному випадку приділяється увага виявленню чинників чи об'єктів, внаслідок яких існує загроза знищення людства, а також вони здійснюють оцінку ймовірності всепланетарних катастроф. Ще один напрям їхнього пошуку складає фактів про глобальні природні катастрофи, які мали місце раніше в історії нашої планети. Автор зазначає, що дані науковці уникають вживання поняття "есхатологія" та його похідних, натомість вживаючи поняття "глобальні ризики". Ми також стверджуємо, що подібне зумовлене прагнення вчених, насамперед представників природничих наук, відмежуватися від напрацьованих історично релігійною думкою попереджень (віщувань) про скінченність не лише людського життя, але й людства як такого, під впливом надприродних чинників.

Автором наголошується необхідність поглибленого аналізу праць представників так званої нерелігійної есхатології з боку сучасних релігієзнавців, щоб здійснювати порівняння й узагальнення різних сценаріїв розвитку людства, в тому числі напрацьованих у межах різних теологічних думок та релігійної філософії.

Стверджуємо, що сучасне глобальне інформаційне поле не дає людям можливості не усвідомлювати наявність глобальних ризиків. У статті проаналізовано глобальні загрози нерелігійного змісту, які розглядаються колом науковців як потенційно ймовірні. Вказано, що глобальне інформаційне поле сучасного світу не залишає людині шансів бути неусвідомленим щодо глобальних ризиків есхатологічного характеру.

Ключові слова: *релігійна свідомість, есхатологічні погляди, глобальні ризики, нерелігійна есхатологія, фільми катастроф, а-логіка, повсякденність*

Introduction of the issue. For a person who has a unique own being and understands its fragility, awareness of his or another's life finiteness is one of the central ontological problems. Issues of life and death stimulate interest in religion, mysticism, and occultism. The latter nowadays have begun to attract considerable attention, contributing to the phenomenon of a-logic in human thinking and behavior. But beside the question of the finiteness of life on an individual, habitual lifestyle fragility influenced by many modern challenges, the finiteness of humanity and society causes even more questions.

Well developed systems of religious dogma give impetus to the philosophical reflection of eschatological issues, which led to the emergence of a number of concepts and approaches to eschatology as a doctrine of the mankind future comprehension.

Eschatological doctrine, developed by religious thought, remains an inexhaustible source of inspiration for writers and publicists, as well as the grounds for speculation, the subject of

which is of great interest of man as it concerns the deepest foundations of human existence that is, the eternal questions connected with the meaning and purpose of life, good and evil, death and the longing for immortality. Threats to the existence of all life on our planet independent of the human factor contribute to the emergence of eschatological views into the non-religious sphere, where they significantly influence the outlook of modern man. The global information space plays a major role in enhancing eschatological moments in the worldview of contemporaries as the mass media make every effort to increase the modality of any information, in order to increase their own ratings, in particular by stimulating the interest of contemporaries in planetary disasters. However, the excess of negative information "dulls" a person's emotional and sensual perception of reality, reduces the ability of critical thinking and enhances a-logic (O. Polishchuk) in world perception and behavior. This reduces the stressful tension of a person, on the one hand, but can develop a fatalistic perception of reality.

The outline of unresolved issues brought up in the article. There is a significant feature of eschatological ideas development: their actualization in the crisis era. They become interesting when there is no confidence for progressive development in society, which provides ample opportunity for speculation of hopes and fears. This is what nourishes the eschatological ideas of certain religions.

Thus, the end of the world threat can be delayed in time, as it is said in the biblical prophecy about the impossibility to predict the exact date of the death of mankind; and be offset by the hope of a better future after the coming of Christ.

Modern developments in the field of eschatological ideas research are developing in the direction of liberation from mythological layers. Eschatology is now one of the promising areas for reviewing and transforming the branches of theology, along with its "traditional set of ideas": the idea of sin, the end of the world, cataclysms, the election to salvation [1: 5]. Although such an approach is characteristic of neo-orthodoxy, in our opinion it goes far beyond its scope, including non-religious, secular eschatology.

Therefore, it seems necessary to have an in-depth analysis of the works of its representatives by contemporary religious scholars in order to compare and summarize possible scenarios of human development in the face of "global risks", including those developed within different theological opinions and religious philosophy.

Current state of the issue. The term eschatology comes from the Greek words ἐσχατος – the last, the ultimate, and λογος – the word, doctrine. Most often, eschatology is defined as a religious or philosophical-religious doctrine of the ultimate goal of the historical process and of the cosmos as a whole [2: 707]. The interpretation of eschatology as the doctrine of the ultimate destiny of the world and man is widespread [3: 97]. In particular, R. Bultman, along with defining eschatology as a doctrine of "last things"; how "the world known to us will come to an end" speaks of eschatology as the doctrine of "the disappearance of the world" [4:31]. Today, more and more researchers are talking about non-religious (so-called secular) eschatology as opposed to religious. In non-religious (secular) eschatology, anthropogenic and cosmogenic (cosmic) eschatology can be distinguished.

Aim of research. The purpose of the article is to analyze the problem of non-religious, "secular" eschatology as an alternative to religious, on the one hand, and to the concept of "global risk society" on the other.

Discussion and results. Before using the concept of "non-religious eschatology," let us note that it is

conditional proposed by us to refer to a set of approaches to the "end of the world" problem and its probable perspectives and scenarios, which are regarded as scientifically hypothetical by a wide range of scholars in the field of natural and humanitarian knowledge, as well as by researchers who proceed from methodological foundations of non-religious knowledge. In the scientific community, there is a tendency to avoid the term "eschatology", but the popular alternative is the concept of "global catastrophes". The latter are the catastrophes of the greatest possible magnitude, which could result in the extinction of mankind [5: 157]. Consequently, the task of modern scientists-researchers of global disasters is not to list them, but to analyze the mechanisms of their occurrence for the purpose of prevention [5: 158]. Due to the awareness of the possibility of global disasters a new interdisciplinary field of knowledge is emerging – the study of global risks [6: 4-5]. There is also another trend in the interpretation of "scientific" eschatology, namely: as a doctrine of the limits of earthly existence, which is based on scientific facts and perspectives of scientific forecasting. In the most general form, they are structured according to two principles: 1) terrestrial or extraterrestrial origin; 2) techno- and anthropogenically eschatological scenarios, that is, according to the human role in eschatological threats. Among the most probable eschatological perspectives of mankind, there are more than two dozen most probable scenarios of the end of the world, among which only a small part (less than a third) are threats techno- and anthropogenic by origin [7].

If we analyze them based on the principle of their genesis, driving force and cause and effect, there are three major groups: 1) cosmic eschatological scenarios; 2) "earthly"; 3) anthropogenic or man-made. Among the largest and most quantitative and probable are the two groups of threats, which are conditionally divided into "cosmic" (ie, threats from space, which do not depend on the course of natural processes on Earth), as well as "terrestrial", which are directly dependent on its geological development and natural state of things that results from it.

Prominent in the list of "cosmic" eschatological scenarios is the idea of "the great collapse of the universe" (ed. "The great collapse of the universe") [8: 7-10], which is considered a hypothetical conclusion to the history of the world, which began as a result of the great explosion (just as, for example, the Christian eschatological concept of the second coming of Christ ends the history of the Earth, which was initiated by the event of its creation by God). This scenario has the alternative – a "big break" hypothesis. (Since it is referred to in the literature as the "Great Gap Theory", in our study we consider the equitable use of both terms: both "hypothesis" and "theory"). If the former is based on the predominance of gravity over the acceleration with which the "universe" flies, the opposite is based on the significant advantage of "dark energy" over gravitational forces, which is more likely to cause the universe to explode [7: 202]. The most optimistic in this hypothesis is the assumption that a new world may emerge in this space.

Catastrophic consequences for the Earth will have the death of the Sun. In 8 billion years (possibly earlier), it will turn from a yellow dwarf to a red giant, which, in increasing size, will absorb Mercury and Venus. The prospects for our planet in this scenario can unfold in two planes: pessimistic and optimistic. The worst case scenario involves combustion on the sun's surface (which scientists think impossible to reach), and "evaporation" to the point of disappearing as a result of approaching the red giant. The "optimistic" scenario also leaves mankind with no chance, as it foresees Earth departure from the sun to a

distance, safe in order to survive the stage of the red giant (albeit transformed into a hot, Venus-like planet). It is at this distance from the Sun that Mars is regarded as an alternative to Earth for the preservation of life and the future of humanity in the long term [8: 15]. Today, *Space X* head Elon Musk is planning the first flight to Mars in 2022, the most ambitious consequence of which is the organization of the first colony on the planet.

One of the variations of the Sun death is the probability of an explosion of a supernova star near the Earth. Although the Sun has too little mass to turn into a supernova, scientists note the changes taking place in it. So, over the last ten years the temperature has risen from 15 to 27 million degrees Celsius, which indicates the formation of a new nucleus. In addition, there is a coincidence of cycles of solar activity (11-, 22-, 100-, 400- and 900-year) which will occur in the 20's of the XXI century. In case of scenario of the Sun transformation into a supernova humanity, like Earth as a whole, is projected to last no more than eight minutes, after which life will be destroyed and the planet itself will be brought down from orbit and thrown outside the solar system. It should be noted that the likelihood of this is too low for serious concern. In eschatological forecast the red giant in the constellation Orion Betelgeuse, as well as Sirius, the latter, however, in the very distant future, are more threatening to the Earth [7: 68-69]. The supernova into which each of them will turn, for the Earth will mean first of all, an increase in temperature, which will lead to the melting of glaciers, raising the level of the oceans with all its consequences.

Among the threats from space, which can seriously affect the fate of the Earth and all living things on it, the phenomenon of gamma-ray bursts, which was first discovered in the late 60-70's of the last century and still remains poorly researched and not sufficiently understood is worth mentioning. The gamma-ray burst refers to the high-power cosmic emission of energy, the intense short streams of gamma radiation that go by a "beam", that is why their energy is more concentrated [7: 82-91; 6: 183]. They are considered the most powerful processes in the universe. There were about a hundred hypotheses about their origin, two of which are most likely today: the explosion of a giant supernova (hypernova) and the collision of two neutron stars. And in that case, and in the other black holes are formed, which, too, remain for scientists a zone of hypotheses and assumptions.

If a 10-second burst occurs at a distance of 10 thousand world years from Earth, according to researchers, it will lead to the splitting of atmospheric nitrogen into atoms, and in 5 weeks 90% of the ozone layer of the Earth will disappear [7: 89]. According to optimistic forecasts, saving a life - even a human one - is possible in this case, but one can only guess its level.

The most obvious cosmic threat to Earth has always been, and remains, the fall of a celestial object ("space bombardment"). Such objects are comets, asteroids, meteorites. Comets have always aroused awe and have been regarded as harbingers of all manner of misery since ancient times. Even in the early twentieth century, there was an increase in panic as the Halley comet approached Earth (its tail passing through the atmosphere). Spectral analysis revealed toxic gases in it, causing not only the actualization of eschatological expectations, but even the wave of suicides [8: 36]. The threat of a comet's collision with the Earth should not be underestimated. Thus, if a comet with a diameter of 20 km collides with the Earth, there will be an explosion of 1.8 billion megatons. Everything within a radius of three thousand kilometers will burn, six – will be blown by a hurricane, after which there will be a powerful

earthquake that will destroy all that remains [7: 61]. Compared to comets, the fall of an asteroid to Earth will have more detrimental effects.

In the past, the fall of asteroids has greatly altered the geological picture of some localities (for example, the Gulf of Mexico), and has also caused the extinction of biological species (according to one version – dinosaurs (65 million years ago), marine vertebrates (250 million years ago)).

With respect to the immediate perilous prospects, there is little likelihood of Earth colliding with the Apophis asteroid in 2036 [8: 49]. Проте сучасний стан розвитку технологій дозволяє відстежувати космічну активність комет та астероїдів, щоб спрогнозувати загрози і по можливості уникнути наслідків.

Another large group of eschatological predictions is the "catastrophes of the Earth" [8: 62], which are also potentially embedded in the natural state of things around the world and in no way dependent on humans, are not factors of anthropogenic or man-made origin. Among them there is the "tremors of the Earth", which is understood as the movement of lithospheric plates, resulting in a catastrophic pair of phenomena that can cause or accompany each other - earthquakes and volcanic eruptions. It is often possible to observe a close correlation between increased seismic activity and volcanic eruptions. Volcanic eruptions (several eruptions) that are on the border of lithospheric plates cause a strong earthquake. For example, in the Aleutian Archipelago in 1986, the successive eruption of four volcanoes was preceded by an earthquake of magnitude 7.7. Conversely, in 1899, four earthquakes in Alaska triggered a powerful eruption of two volcanoes in 1912, located 10 km apart [8: 123]. We should note that these events have dramatically altered the terrain. This case is not alone as on the site of large-scale eruptions mountains, caldera valleys, picturesque lakes (such as Yellowstone, Toba) are formed.

Volcanic eruptions and earthquakes may be considered eschatological when they cause the disappearance of entire civilizations. Catastrophic in 1815 was the eruption of the Tambora volcano, located on the Indonesian island of Sumbawa, for the three island civilizations - Pekat, Sangar and Temboro, their culture and Tambora language, which is considered the most Western Papuan language [9]. Many volcanologists consider the Tambora eruption to be the largest and most devastating volcanic eruption in human history. Human casualties amount to about 80,000, including those killed by disease and starvation resulting from volcanic activity. As a result of significant emissions of gas and ash into the atmosphere, the planet's illumination decreased by 15% [8: 134], and the average temperature dropped by three degrees Celsius. The northern hemisphere in 1816 encountered an unusual phenomenon - a year without summer [10]. The well-known Minoan culture disappeared due to the explosion of the Santorini volcano around 1470 BC. Its capacity is estimated to be five times the power of the Kratakau volcano, which is considered the second largest after Tambora [8: 130-131; 11]. It is suggested that the disappearance of Minoan civilization on the island of Crete became the basis of the legend of Atlantis.

The mighty Ilopango volcano in El Salvador has destroyed the Mayan mountain of Chalchuap settlement. Today, Chalchuapa is one of the largest architectural landmarks in the southeastern mountain range of the ancient Maya, dating back to the end of the 1st millennium BC when it was "approaching true city status" (long before cities appeared in other Mayan areas). The surviving inhabitants left this land forever and joined the tribes that lived on the plains and in the jungle. It is

believed that such displacement of the population "became the catalyst" of the classical period, the heyday of the Mayan civilization [12]. However, no volcano in terms of the magnitude and magnitude of catastrophic consequences can be compared to what scientists have called supervolcanoes since the 1970s. Supervolcanoes are of particular interest to the global scientific community, as well as the public in general. They form a specific group of volcanoes that were discovered in the 1970s, but the term came into use in 2000 when it was used in the popular science series "Horizon" [13]. To date, there is no single definition of this concept. It is used to denote volcanoes whose eruption reaches 8 on the VEI (Volcanic Explosivity Index), indicating their global character for the entire planet [8: 134]. Their eruption is capable of causing global climate change on the planet, including "volcanic winter" – the cooling caused by the release of huge amount of volcanic ash and sulfur compounds into the atmosphere. With enough of these, global climate change can occur for many years [14].

There are approximately two dozen supervolcanoes in the world. The most famous of them are: Yellowstone caldera (55 * 75 km, USA), Toba (30 * 100 km, Indonesia), Tambora (65 * 70 km, Indonesia), La Pacana (65 * 35 km, Chile), Cerro Galan (35 * 25 km, Argentina), Long Valley (20 * 35 km, USA), Taupo (46 * 33 km, New Zealand), Wellis (19 * 22 km, USA), Ace (24 * 18 km, Japan), Aira (17 * 23 km, Japan), Flegre Fields (10 * 10 km, Italy), Blake River (Canada), Karimshina (Russia).

The biggest concern today is the Yellowstone caldera, as this volcano is considered potentially dangerous for the near future as well as the waking one. According to researchers' forecasts, its effects will vary in severity from the new Ice Age to the apocalypse if it awakens other Earth's super volcanoes [15; 16; 17]. It is the largest in the USA, its caldera extends 60 km in diameter. Over the past two million years, Yellowstone has exploded at least three times, with explosive power reaching 8 VEI points [8: 138]. Adequate funding for US-based super volcanoes and detailed Yellowstone observations make it possible to track its activity, which is, among other things, found in the annual replenishment of the "magmatic pocket" of 0.1 cubic km of substance, which gives cause for serious concern and the development of an explosion prevention strategy [8: 138]. NASA experts see the possibility of "cooling" the volcano as one of possible way to prevent this [16]. Scientists are concerned by the neighborhood of two powerful super volcanoes Yellowstone and Long Valley in the USA. The latter was considered inactive until 1980, when a series of underground shocks in its caldera began the process of raising its level. Since 1982, the super volcano has been closely monitored by scientists who fear that the activity of one of them will provoke the other to awaken [18].

The "powder keg" on which most of Europe sits is considered to be the Flegre Fields, a seismically active area near Naples, which is also heavily populated. Therefore, the awakening of a volcano in this area can result in millions of human casualties [8: 142]. An interesting phenomenon is the Aira super volcano in Japan, because in its caldera are the city of Kagoshima and "young" (13 thousand years old) active volcano Sakuradima – one of the most active volcanoes in Japan. The presence of two volcanoes on the territory of Japan gives grounds to assume their "chain reaction", when the explosion of one will inevitably lead to the eruption of the other [19; 20]. Since 2007, researchers at the Institute of Volcanology and Seismology of the Far East Branch of the Russian Academy of Sciences have talked about the Kamchatka supervolcano – the Karimshin caldera [21].

The influence of super volcanoes on the global climate is quite significant, which gives grounds to compare their

explosions with the effect of the asteroid falling on Earth [22]. In addition to the direct destructive effects, the photosynthesis process is reduced with the decrease in illumination resulting from the large-scale emission of volcanic matter into the atmosphere. According to studies, if the illumination is reduced to 10%, photosynthesis is a maximum of 15% of the norm [8: 135]. Reducing the amount of biomass can trigger the migration of a population that has experienced a natural cataclysm. Thus, it may have happened about 30-70 thousand years ago, when a small group of migrants from Africa migrated north, coinciding with the period, with the eruption of the Toba super volcano (about 74 thousand years ago) [8: 135]. Some volcanologists suggest that this eruption was the cause of a severe ice age on the planet that nearly destroyed modern humans [23]. Our planet has already experienced several volcanic winters in its history. In case of the explosion of at least one of the super volcanoes, there will be a volcanic winter that will turn into a "small ice age", which means several decades without summer [8: 135].

We should note that Krakatau supervolcano in 1883 "turned" the weather conditions for several years. His outburst was such a force that plunged the outskirts of Krakatau Island into the darkness for two days and a half. Volcanic ash circled the globe three times, which is reflected in the extremely picturesque and unusual sunsets [14]. At the same time, the planet's temperature dropped by 1.2 degrees Celsius and returned to normal until 1888 [24]. Their outbursts also had the effect of abnormal, less time-consuming, natural conditions. Thus, in 1815, due to the explosion of the Tamboro volcano, England had snowfall throughout the year until August, no less than twice a month [8: 147]. As a result, people's daily lives had undergone significant changes, causing suffering and uncertainty about the future.

While estimating the likelihood of an eschatological prediction, scholars have no clear opinion. There is an optimistic tendency to consider most of such scenarios as "unlikely" and not worthy of serious concern, at least for the millennia to come. These include solar flares and increasing its luminosity in the process of turning the sun into a red giant; gamma-flashes; supernovae; superzunami; super earthquakes; change of Earth poles; emergence of new diseases; marginal natural risks (unauthorized transition of the vacuum to a state of lower energy, unknown processes in the Earth's nucleus, explosion of other planets of the solar system, release of gases dissolved in the oceans into the atmosphere) [25: 179-194].

Along with understanding modernity as a world of potential global catastrophes, the term "catastrophically unstable environment" is used, the essence of which includes the high likelihood of destruction of human habitat at any time. In this context, the task of assessing the risks of civilization destruction and developing a strategy for its survival is the foremost task of scientists from different fields of knowledge [26]. It should be noted that the concept of civilization in this context refers to human civilization, humanity in general. This year, 2019, has been marked by cataclysms that will have irreversible consequences for human civilization. These include, in particular, fires in Brazil (the destruction of unique Amazon rainforests) and Australia; Typhoon in Japan and earthquakes in several countries have become equally devastating.

Among the threats to a "catastrophically unstable environment" are the following:

1. Processes occurring inside the Earth, shifts in the tectonic structure of the planet (super volcanoes,

displacement of magnetic poles, processes in the deep layers of the Earth, displacement of the Earth's core);

2. High-power flares and emissions on the surface of the Sun, which affect the provision of the necessary light and temperature regime to the Earth;

3. Space threats (comets, asteroids, etc.);

4. The use of mass destruction means;

5. Man-made disasters;

6. Choosing the wrong path of civilization;

7. Threats of destruction as a result of technological development [26: 253-254].

We should be noted that a separate group in this threat classification is the potential space threat, which concern the destruction of the life of a part of the galaxy that includes the solar system, of the entire galaxy, of the Milky Way galaxy group, of life in the universe as a whole, or in possible structures that may include the universe.

Therefore, the priority of humanity is to ensure the "indestructibility of civilization". It should be emphasized that Alexander Kononov pays attention to the "potentials" of this indestructibility. He distinguishes the qualities, achievements and characteristics of civilization that will not allow its death or weaken in case of such threats [26: 254-260]. Threats to life on Earth make us take a fresh look at the idea of cosmism, developed from the time of the ancient world, giving it practical meaning. Thus, astronomers are actively developing the problem of finding exoplanets. We should mention the practical work of Elon Musk, who plans the first flight to Mars in 2022, the most ambitious consequence of which is the organization of the first colony on the planet.

Scientists seriously consider Mars the best planet for the resettlement of humanity in case of a planetary catastrophe on Earth, however, in the distant future [8: 15]. The presence of water on the planet, even in frozen form, suggests the occurrence and development of living organisms in case of climate change. Such a change can be provoked by the heat of the sun and its increase in size, which, in turn, will make life on Earth impossible. Another favorable factor for life on Mars is the length of day, which is close to one on Earth – 24 hours and 39 minutes. According to one hypothesis for the origin of life on Earth, Tibetans may even be descendants of Mars' migrants. The hypothesis is supported by genetic studies by scientists from China, Denmark and the University of California, according to which the people of Tibet (90% of indigenous people) carry the gene EPAS1, which allows them to live in a rarefied atmosphere and low temperatures at an altitude of 4 thousand meters above sea level [27]. The question arises is what prompted them to choose such severe climatic conditions and poor living conditions? Or is it because they are similar to the rarefied atmosphere of Mars, as well as gravity, which is 38% of Earth's. Of course, it is not easy to give a definite answer to this question.

It is necessary to note also "Berdyaev" tendencies within eschatological consciousness: both to eschatological pessimism and to eschatological optimism [28: 8-9]. That is, we have an ambiguous understanding of the future of humanity and the attitude of scientists to it.

Conclusions and research perspectives. Total amount of non-religious ideas about the probable eschatological scenario of life on Earth and in the universe existing in modern society gives reason to consider the society of global risks as an argument for the use of the concept of non-religious (scientific in the perspective) eschatology. Global information field of the modern world leaves people with no chance to avoid realizing the global risks. And there is, as for me, a high probability of eschatological consciousness formation

in the modern era. That gives hope for a positive future and prospects for the development of this problem in the scientific and practical aspect.

Formation of non-religious (scientific in the perspective) eschatology can also give impetus to sectoral studies of the eschatological issue of non-religious eschatology, social eschatology in particular.

LITERATURE

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