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# A BIBLICAL AND SCIENTIFIC APPROACH TO COSMOGONY IN THE WORK OF PROFESSOR IOAN MIHĂLCESCU

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## **Abstract**

Cosmogony is one of the themes that have preoccupied mankind since ancient times. Initially and even throughout several millennia, it was exclusively approached from a religious perspective, but with Renaissance and especially since the eighteenth century, scientific cosmogonies appeared as well. Lately (starting with the first decades of the twentieth century), as a consequence of the progress of both Science and Theology.

Comparative cosmogonies have appeared as well. Among those who have systematically dealt with this issue, there is also the renowned Theology professor Ioan Mihălcescu. Fine connoisseur of religious history and up to date with the achievements of Science, concerned with providing interesting material and documents to those interested in the religion-science dialogue, including cosmogony, the famous professor made several studies. In this paper we have briefly presented some of the author's contributions to the cosmogonies of ancient peoples, biblical cosmogony, the scientific one and, finally, a comparative biblical–scientific one. Though published several decades ago, the richness, the depth, the value and the connection of the information provided by his study are a model of a beneficial dialogue between religion and Science that was absent in the communist period and that was taken up again in the years after 1990. Nowadays, the encouragement of such dialogue is required more than ever, on one hand because it is embedded in the natural structure of the human person and, on the other hand, dialogue can better respond to issues of concern to scientists and not only.

*Keywords:* cosmogony, Biblical cosmogony, scientific cosmogony, comparative approach

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## **1. General remarks**

The genesis of the world is a topic that has preoccupied mankind since ancient times. If this issue had been previously addressed only from a religious perspective, beginning with the eighteenth century, it started to be scientifically approached as well. For this reason, there are different types of cosmogonies, viewed from a religious, scientific as well as comparative perspectives.

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Among the Romanian theologians that dealt with the complex issue of the relation between religion and science, there is the famous Theology professor, Ioan-Irineu Mihălcescu, PhD at the Leipzig University (in 1903), former dean of the Theology Faculty from Bucharest (twice, 1927-1929, 1933-1936) and Chişinău (1926-1927), Patriarchal Vicar Bishop (1936-1938), Bishop deputy in Râmnic (1938-1939), deputy Metropolitan of Oltenia (1939) and Metropolitan of Moldova (1930-1947) [1].

His work is both rich (including over 540 titles) and various (studies, articles, conferences in all areas of theology, including university, high school, seminar, secondary school textbooks, etc.) [2], includes many and various works concerning the relation between religion and Science, including the issue of cosmogony [3]. Thoroughly developed in terms of research and arguments, his studies on the subject reveal, on the one hand, the solid theological knowledge of the author that forays ‘professionally’ into the history, culture and religion of ‘the ancient civilized peoples’ and, on the other hand, his (as well as of the theology, in general) wide opening to science. This type of approach highlights, once again, the importance and necessity of the dialogue between religion and science in research topics of major interest for mankind. After thorough scientific and objective analysis, both come with specific perspectives and together they create a more detailed study of the problem.

In this paper, we intend to approach the cosmogony in Mihălcescu’s work from three perspectives: 1. the cosmogony of the civilized ancient peoples; 2. Biblical cosmogony and 3. cosmogony from Biblical and scientific perspective [2].

## **2. The cosmogony of the civilized ancient peoples**

The author pays the most extensive attention to this topic. First, defining the term ‘cosmology’, the professor stresses the importance of knowing the ideas that “men of different times, climates, races, stages of culture, as adepts to different religions” [3, p. 22] had about the origins of the world. “The ancient civilized nations” as the author calls them, whose ‘teachings’, perspectives were to be presented in his approach are: the Indians, the Iranians, the Phoenicians, the Assyrian-Babylonians, the Greeks and the Romans.

### **2.1. The Indian cosmogonies**

The first cosmogonies, chronologically speaking, are those of the Indians, the author stating that “the Indians excel in their numerous cosmogonies” [3, p. 22]. Professor Mihălcescu also mentions the fact that he will approach the Vedic cosmogonies, comprised in Rig-Veda, being due to refer to the others only to the extent to which they “overlap with the Vedic ones” [3, p. 22]. The author concludes that all the Indian theories start from the fundamental idea that “the world is the work of a rational principle, of a spiritual being, endowed with intelligence and will” [3, p. 22]. The greatest number and the oldest Indian

cosmogonies present the world as something created, “forged by the creating being from already existing matter: water, egg, lily flower, etc.”, and only later, during the Brahmin period, was the world seen as “an emanation of the very creating divine being” [3, p. 22]. A natural and logical consequence of this thesis is the eternal order which reigns in the world, the law of causality to which everything must comply.

## **2.2. The Iranian cosmogonies**

The Holy Book *per escelentiam* of the Iranians (Medes, Persians, Bactrians, etc.), as well as the oldest one, is the only one that provides enough data “to build the general features of the old cosmogony of the Iranian people, as well as for us to realize the role it had in the religious and cultural life of this nation” [3, p. 24], although it does not comprise a complete cosmogony. According to a text of the Avesta, the creative and providential principle of the world is “a personal, spiritual principle, a God” [3, p. 26]. He is called Ahura - God, Mazda - the Wise One, the omniscient, the creator and the providential of only what is good in the world as well as a multiplying spirit. Together with the six Ameshaspentas, the immortal saints, and with the countless Iazata - worthy of honour, that were created by him, he forged the world and everything that is good in it, leading it towards goodness. The evil, on the other hand, is the doing of Agromainius, the destroying spirit, called Ahriman. The head of the evil spirits try to destroy everything that Ahuramazda created and what he does, as well as the good spirits around him. They oppose darkness to light, death to life, sickness to health, lie to truth, poverty to abundance etc. Ahuramazda’s power is superior to Agromainius’; otherwise the latter would destroy or would have destroyed the world a long time ago.

## **2.3. Egyptian cosmogony**

Due to the ‘eternal Champollion’ (+1832), who managed to decipher the hieroglyphs “that covered almost all monuments remaining from the ancient Egyptians”, and due to the “ceaseless work of many scholars”, to “the amazing progress of Egyptology in the late half of the last century, the children of the twentieth century can know with precision what happened in the valley of the Nile and what the people from the area believed 5000 years ago” [3, p. 37]. At beginning of the presentation of the Egyptian cosmogony, the author stresses the fact that the cosmogony ideas of the Egyptians “are closely related to religion and that religion has not essentially changed during the 4,000 years of life of this wonderful people, who wrote their history on the walls of the pyramids, the sarcophagi, the obelisks, the papyruses, etc.” [3, p. 38]. The Egyptian cosmogony, “which in all probability dates back to the eighteenth or nineteenth dynasty (1552-1288 BC)” [3, p. 38], is exposed, the author asserts, in the seventeenth century Book of the Dead. But the ideas presented here are not the product of ‘this time’, but dates back to the ancient times and are typical of

Egypt as “its entire religion, mythology and cosmogony remained unchanged throughout its lifetime” [3, p. 38]. According to this mythology, ‘in the beginning’, there was neither heaven nor earth. Everything was only water surrounded by darkness. Water (Nun) contained in itself the male and female germ or the seed of the Earth. In it, the godly power, the primordial spirit that was so intimate and inseparable from it that it was identical to it, lived “from the beginning of the millennium” [3, p. 38]. Since the godly primordial spirit felt in itself the necessity of a creative activity, its will, personified under in the god called Thot, created the world, whose shape and icon the primordial spirit had created in its soul. In reality, the word of the primordial Spirit, Thot, first triggered in the chaotic matter an orderly and enliven movement that resulted in the separation and unfolding of the matter which had as a consequence eight characteristics, in the shape of four pairs of gods (a god and a goddess).

#### **2.4. Phoenician cosmologies**

Unfortunately, from all Phoenician literature, only a few fragments by Sanchuniaton of Berit were preserved, fragments that contain a description of the Phoenician cosmogony. The cosmogony of the fragments from Sanchuniaton is only a summary of many popular cosmogonies, some of which, written on stone or metal pillars, were placed in temples for the instruction of the people. According to the information provided by Eusebius, Sanchuniaton places at the beginning of all things dark air in the shape of a spirit, or the spirit of dark air. These were infinite and, for a very long time, endless. When the spirit desired his own beginnings and when a blending (of the principles with the spirit) occurred, that desire was named the Pothos. This mixture is the beginning of all things. From this mixing of the Spirit (with the other principles), Mot was born, which some call water, others a mixture of stale, frowsy water. And all products of creation and the birth of all things started from this [3].

#### **2.5. Assyrian-Babylonian cosmogony**

Assyrian-Babylonian cosmogony is contained in the 7 paintings of creation found by George Smith and Hormuzd Rasse in 1874 at the ruins of the Asurbanipal Palace from Persepolis [3]. They are complemented by the fragment from Berosus (a Babylonian priest, who lived between 330-260 BC), the Greek writer Damascius, a library board of Asurbanipal and another board (published and translated by Pinches in the *Journal of the Royal Asiatic Society*, vol. 23, 1891).

Generally speaking, the Assyrian-Babylonian cosmogony includes the following ideas: the world was made of water (Tiamat and Apsu) by god Marduc, who splits the water into two and creates the sky and the earth, which are the two components of the world; before the humans and animals that Marduc placed on earth, there had been another world with all kinds of monsters, the same as the world had existed before some gods, because many of

them were born later; man appeared as a result of cutting the head of Bel, from whose blood, mixed with clay, the other gods made the man. The idea that man is like God in soul is common to many ancient peoples.

## **2.6. Greek cosmologies**

The author lists them, briefly overviewing them: Homer's cosmogony, the old Orphic cosmology, Hesiod's cosmogony, that of Pherecydes of Syros, Hieronymus and Haellanicus' cosmogony, cosmologies mentioned by Athenagoras and Clement the Roman, cosmologies of the naturalists, the philosophical cosmologies (Heraclitus, Empedocles, the Atomists', Anaxagora's, Socrates and his school's, Plato's, Aristotle's and the Peripatetics', the Stoics' and the Neo-Platonists').

After such presentation, professor Mihălcescu concludes "that the distinguished Greek spirit conceived and beautifully made paintings about the beginning of the world, that many of them are based on adequate knowledge of nature and its laws, and on the legitimate conclusion drawn from this knowledge, but that most of them include items that belong to the realm of fancy and, therefore, they can have a greater poetic value, whereas for science they are irrelevant" [3, p. 98].

## **2.7. Roman cosmogonies**

Roman cosmogonic concerns were triggered by the contacts with the Greeks. They "awoke in them a desire to cultivate the spirit" [3, p. 100]. This explains, Mihălcescu asserts, why we only find at the Romans "relatively new cosmogonies, cosmogonies that did not arise from the people's soul, but mostly fabled by the power of the imagination of later poets" [3, p. 100]. The only deity that appears in the popular belief is Janus, considered a good genius, author of the organic life, the impregnator of the male sperm, the protector of birth. The ancient authors who ascribe to Janus the creator's role do not mention the way in which he the world. This is done later by Ovid, who also achieved complete description of the whole cosmogony.

## **3. Biblical cosmogony**

At the beginning of this chapter, the author mentions the fact that the first page of the Holy Bible describes the origins or the genesis of the world, "as the Jews before Christ believed and since then the Jews and the Christians" [3, p. 116]; afterwards, he quotes the texts of *Genesis* (1.1-31, 2.1-3). After quoting them, professor Mihălcescu makes a profound analysis both of some phrases and of the Biblical cosmogony. He insists on some verses from the Biblical text of genesis which we shall not mention here; we only detain here "the general meaning of the biblical text about the genesis of the world" [3, p. 116] and the central ideas: a. The world is the work of God; b. The world in itself is good; c.

Man is above all creatures, he is to master, he is created in the image and likeness of God; d. The 7<sup>th</sup> day is a holy day, a rest day for man.

Further in his study, the author points out that, throughout the times, the Biblical interpreters formulated and supported several interpretations: literal or historical (with several versions), idealist (with four interpretations: allegorical, poetical, liturgical, of vision), periodical and mythical. At the end of the chapter on Biblical cosmogony, professor Mihălcescu, after confuting with the solid arguments of the supporters of the mythical theory, asserts the superiority of Moses' Biblical teaching on genesis: "the superiority of this over the others (the cosmogonies of other people) is so overwhelming as the pondering on a unique God is compared to the pondering of many other gods, creators and lords of the world at the same time. The absolute spirit, the inexhaustible source of all wisdom and science has shared both his wisdom and science with Moses' limited spirit as much as this could carry in his vessel of clay, it lifted him for a moment beyond time and space and made him perceive the creative act in all its original grandeur, that is why the first chapter of Genesis sounds like the description of something seen, which is expressed in few, great, monumental, almost abrupt words." [3, p. 136]

In the chapter *Modern scientific cosmogony*, the author asserts that, despite the progress of Science 'since Renaissance until nowadays', there is a cosmological theory with 'scientific base' only starting with the end of the eighteenth century. Presenting the scientific cosmogony, he asserts that its beginnings can be attributed to Claudius Ptolemaeus (Greek astronomer, who died in 140 AD), whose theory, known as *geocentricity*, was overthrown by the astronomer monk Copernicus (+1543) who founded the heliocentric theory, the author also mentioning the fact that he did not learn anything new about the beginning of the world. Next he argues that other scholars treaded as well on 'the path of Copernicus': Kepler, Newton, Galileo, Herschel, etc. However, in spite of these discoveries, "no one tried by the end of the eighteenth century to draw a conclusion about the origin of the world" or to put forth a "cosmological hypothesis of scientific nature" [3, p. 139]. The first to have developed a scientific cosmology was the great German philosopher Kant, followed by Laplace. Their hypothesis about the origin of the world is accepted only by scientists. Still, not even this, Mihălcescu asserts, fully explains the origin of the world, since it "explains to us only how cosmic matter or primitive nebula, by subjecting to the law of gravity and due to some of its inherent qualities, could – after a series of transformations – give birth to the material world or to the Universe" [3, p. 140], but, at the same time, there are still many questions that remain unanswered: what is the origin of cosmic matter, how and when did it appear, who determines the law of gravity, where does the matter have the characteristics that make it capable of development from, who endowed it with them?

#### **4. The cosmogony of biblical and scientific perspective**

This issue is dealt with in a special chapter. In its approach, the author first refers to the differences that exist between them:

- a) difference of point of view. Here the author states that science tries to explain the origin of the world relying on physical laws. In other words, it only operates with something given, “with the matter and physical laws”, while religion deals primarily with “issues that are beyond mere observation and experience” [3, p. 144], it “lifts man with his mind to God, the cause of all causes and makes him look at the world and its things from a quite different perspective that is much higher than of that science” [3, p. 145]. From this perspective, the “picture” that The Holy Scripture presents with regard to the origin of the world is different from that of the science. This explains, the author asserts, why “on the one hand, the picture of the biblical cosmogony includes some common and scientific elements, on the other hand that, in spite of all this community of ideas, the form and spirit are totally different” [3, p. 147].
- b) the second point where the two cosmogonies differ is that the cosmological hypothesis of the Science tries to explain the formation of the whole Universe, while the biblical view of creation considers “particularly the description of the way the earth was formed and of the way things and the living creatures on it were born and received meaning” [3, p. 147]. From this perspective, the author says, one can say that “the bible view of the world is geocentric, since the land only is of particular importance, while other heavenly bodies are mere ornaments” [3, p. 147].
- c) the third point of difference between the two cosmogonies is the description of creation as ‘a six-days work’ in the Holy Bible. However, any difference disappears if we take into account that the Bible has “a totally different purpose” [3, p. 148] than Science and that “consequently, one must not seek to establish perfect parallel between what this tells us with regard to the creation of the world and what science tells us” [3, p. 149]. That is why the author asserts that it is enough that the resemblance between one and the other should be in general terms. Precisely this resemblance and harmony between the information about the creation of the world provided by the Holy Bible and that provided by Science made the French physician Biot assert: “Moses either had scientific knowledge that was as profound as that of our century or was inspired” [3, p. 149].

However, beyond the three mentioned differences, Professor Mihălcescu underlines one thing “that must be strongly emphasized” [3, p. 154], that is that between the general guidelines of the Biblical story about creation and the assertion of the cosmogony hypothesis of science there is complete harmony. In order to support his assertions, he enumerates the strong common points of the two cosmogonies: the acknowledgement of the chaotic matter and the cosmic nebula out of which the world was made, that the Earth was at the beginning a shapeless mass of matter, surrounded by darkness and water, that light followed

darkness, the emergence of land or the separation of land from water, that the earth is gradually covered by vegetation, that animals and man afterwards emerged from water because vegetation had to precede the animal world since it prepared the emergence of the latter. Hence, another conclusion of the author: “true science has never been and will never be against religion, on the contrary, it is its good ally as true religion has always been a good companion and sincere guide of Science” [3, p. 154]. Somewhere else, the same author draws our attention to the assertion of a German theologian that expresses in an interesting way the relation between faith and Science: “our science is nine parts out of ten only faith in the science of the representatives of science” [4]. In order for this assertion that belongs to a theologian to have greater depth, especially for those that are not familiar enough with the relation between religion and Science or still pay tribute to the theory according to which the two ways of knowledge oppose one another, professor Mihălcescu quotes some of the most outstanding scientist that lay stress on their harmony and complementarities. Thus, he quotes: the great English geologist Ch. Lyell (+1875) who asserts: “in any direction we turn our research, everywhere we shall find the clearest evidence of a creative intelligence or of providence, power and wisdom” [3, p. 155], the famous botanist A. Braun (1877) who states: “to know the divine in nature is the first sense of the human spirit that wakes up and tends to rise above worry, the necessities of the outside life. And this search for the divine is and remains on all other stages of development of human consciousness ...” [3, p. 155], another botanist, O. Heer (+1889) who writes: “if you look at nature superficially, it is easy to get lost in the endless universe but if you take a better look at its wonders, you always end up at God, the master of the world” [3, p. 155], the great chemist Justus von Liebig who says: “knowing nature is the way to admiring the greatness of the Creator’s glory, it gives us the true means of observing the greatness of God” [5], as Otto Zoekler asserts in *Gottes Zeugen in der Natur* [6]; the famous botanist August F. Quenstedt (+1889) who, with regard to the book of Genesis, records: “this book contains so much truth that we can assert even today that Moses (3400 years ago) was the greatest geologist of all times [3]; the famous Belgian geologist A. Dumont asserts almost the same thing: “it is amazing that after all the progress of Geology, one has to admit that Moses, in the ancient times he lived, stated his opinions about the strata of the earth, in the order in which the creation of various creatures occurred” [7]; L. Agassiz (1873), “unsurpassed researcher of the fish life”, who asserts: “my science is only the translation of the thoughts of the Creator in human language” [3, p. 155]; the renowned anthropologist A. de Quatrefges (+1892) who asserts “when I raised my mind to the sources of all harmonies, I have always found the eternal power a starting point of this great chain, and creation raised my mind from one wonder to another, all the way to the Creator; oh! Then I admired Him from the bottom of my heart in His things and I exclaimed with Geoffroy St. Hilaire: Only God deserves the honor!” [8] As Mihălcescu asserts, “quotes of this type could multiply to infinity...?” [3, p. 155] Towards the end of his study, Professor Mihălcescu quotes the botanist Oswald Heer again, but in a different



context, that we render here: “only half science discards one from God, while sound science leads to God” [3, p. 155]. An equally eloquent answer is given to those who want to impose on science Biblical data, the answer being, in fact, a word of Augustine: “In the Gospel, we do not read that the Saviour said: ‘I shall send the Holy Spirit to teach you about the movement of the Sun or the Moon’. We must be Christians, not astronomers” [4]; and another answer from Cardinal John Henry Newman: “The religion tells us only who made the stars, not the way they revolve” [7].

In another study, as interesting as the former, the author makes a presentation of the same issues from a similar perspective. It is about using scientific data related to our planet (the Earth), Jupiter, the Sun, the stars (e.g. the star Vega, which he says “it is 40,000 times the Sun and it might make 50.400.000.000 Earths like ours” [9], other stars being bigger than it), the Milky Way, etc., to demonstrate that the author of all is God. And talking about The Scripture, the author states that it “is neither a book of Geology, nor of Astronomy, nor Cosmology, it is a holy book, which does not aim to give us lessons about the world, but teaches us how to save our soul” [6]. And his presentation does not stop here as he adds: “although the Scripture does not seek to offer us a scientific expose about the world, what it tells us about genesis can easily harmonize with what science tells us, through its representatives, such as Kant and Laplace” [6].

## **5. Conclusions**

The fundamental problems of mankind have always been, as it is natural, its core. Among them, cosmogony is one of the topics that have constantly preoccupied the scholars. If, up to the eighteenth century, it was considered exclusively from religious perspective, as human society has hither been a purely religious one, starting with the end of the same century, as a consequence of the ideas put forth by the ideas of the rationalism excessively promoted by the Enlightenment current, the means of debating on this topic diversified; it gained an even more important scientific dimension. If, unfortunately, some of the representatives of science, indeed few in number, manifested hostility towards religion, most of them were in favour of the dialogue between religion and Science. This dialogue, at the bosom of our Church, has been promoted by several personalities, Ioan Mihălcescu. Having a major role. For many years, the renowned theologian had researched and deepened the religion-Science relation that took the shape of many and valuable studies.

If, during communism, this dialogue was brutally interrupted, the Marxist-Leninist ideology disregarding, attacking and condemning religion, after 1990 this dialogue was resumed, quite frailly, but it has strengthened in time and has gradually got more and more attention, which was both natural and necessary. This was the reason we have chosen this subject: to point out that religion, the Church in general and our church particularly have been concerned with and wide opened to dialogue and that a society is normal to the extent it cultivates

dialogue and, through it, human values. From the presentation above, we retain the fundamental idea: true religion, like true science, leads to knowledge and to the true way.

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