

Tatiana Chernyshova**Science Fiction and Myth Creation in our Age**

The following article originally appeared as “Nauchnaya fantastika i sovremennoe mifotvorchestvo,” in *Fantastika-72*, E. Brandis & V. Dmitrevsky, ed. Moscow: Molodaya gvardia, 1972. 288-301. The English translation, by Istvan Csicsery-Ronay, Jr., is from a Hungarian translation by Attila Farkas published in the Hungarian sf magazine *Galaktika* 21 (1976). Because most of the sources cited by Chernyshova are available only in Russian, the editors have listed them with their original (Cyrillic) titles, following Russian bibliographical conventions.

The notion that sf is a form of myth is not a new one. Olaf Stapledon wrote in his introduction to *Last and First Men* (1930) that his work is “an essay in myth creation,” that the effect he wished to create is closer to that produced by myth than to the effects produced by science and art.

But before we have the right to speak of myth as a phenomenon of our own age, we must clarify several questions. Let us begin with the concept of myth itself.

Contemporary scholarship has proposed many definitions of myth. Scholars have frequently noted the divergence of opinions and the abundance of (often contradictory) conclusions derived from them. For R. Vaiman, the reason for these divergent opinions is that each of the various disciplines—philosophy, ethnology, anthropology, classical studies, religious studies, psychology—interprets the concept of myth in its own way, as each studies myth’s different forms and aspects from its own particular perspective (176).¹ Let us add that literary history, which investigates the relationship between myth and poetry, has similarly produced no unified view of myth. Modern research can no longer be satisfied with definitions like Vladimir Propp’s: “a narrative about the gods or divinities in which the folk believe” (16),² or Trencsényi-Waldapfel’s “traditions about gods and heroes.”³ Sergei Averintsev calls these “formalist conceptions of myth” (115).⁴ We also find attempts to define myth primarily as ideology. For A. Gulyga, myth is above all “the consciousness of the masses blindly subordinating itself to the prejudices that arose among them or were induced by them” (221).⁵

Obviously, these views all have some legitimacy, since classical myth was simultaneously narrative and ideology, fulfilling dozens of different social needs.

Unfortunately, such definitions often identify one or another of myth’s functions, and absolutize them. They consequently lean too far in one direction or another, and the whole picture is necessarily distorted. This is especially true when they conflate some contemporary phenomenon of society’s spiritual life with classical myth creation. This is the case with Gulyga, who, while investigating the ideological functions of modern capitalist society’s so-called “social myth,” functionally links it with myth creation in the classical period. He arrives at the conclusion that “myth is not so much a world model, as it is a

model of conduct," and although myth "collects the first shreds of knowledge, as a whole it has precious little to do with cognition."

It goes without saying that among contemporary definitions of myth we find some that assert exactly the opposite view. But let us first agree that among the many various functions of myth, we are interested in precisely those that Gulyga rejects: the relationship between myth and knowledge—though we are, of course, well aware that mythology cannot be simply reduced to cognition.

We cannot deny that even the most primitive myths reflect people's knowledge about themselves and the world around them. Indeed, certain scholars assert that the basic function of ancient myth is the accumulation of knowledge. Now the accumulation of knowledge and the cognition of reality are not entirely identical concepts. And it is based on this discrepancy that Gulyga denies any relation between myth and cognition. It is hard to agree with this opinion, however; to do so, we would have to ignore the activity of creative human consciousness in its early developmental stages. No matter how underdeveloped the consciousness of myth-creators might have been, it was already human consciousness, as people strove to explain the reality around them, making conjectures about causal relationships between and among phenomena. And if we are searching for a completely comprehensive definition of myth, we must not forget that "mythology is the mode of thought of a certain stage in the development of humanity" (Lossev 9).⁶ Modes of thought cannot develop, nor indeed can they even exist, outside the process of cognition.

"Cognition, considered from an information-theoretical perspective, is especially the result of the acquisition of information and the further processing of this information into informative models of reality" (Ursul 144).⁷

Myths begin precisely as models of reality, which gradually change by degrees, becoming increasingly complex. As human beings become interested in ever more comprehensive spheres of phenomena, they strive to introduce new concepts into their systems of opinions, reshaping, supplementing, and transforming the mythological model of the world. Mythology as a unitary, albeit contradictory, image of the world naturally did not come into being all at once; but empirical myths strive to coalesce into a system—their cyclical character attests to this. In the course of forming the canonical myths, the ancient world reshaped old legends, arranging everything around the central focus of Olympus, and the earlier pagan gods were replaced by the Olympians. Scholars associate the very appearance of myth with the emergence of the desire to see the world as a whole. After all, this is how scientific theories of reality, world-pictures, also come into being: first the facts of empirical knowledge are accumulated, and then these facts coalesce into more or less contradictory systems, defined world-models. In the course of the development of science, models change with the appearance of new facts; they are corrected, and eventually replaced with a new model. In the history of mythic thinking as well, numerous world-models have succeeded each other, since living myth-creating consciousness does not tolerate stagnation. It preserves one or another world-view only as long as it believes it is true. Lossev breaks down the history of classical mythology into the ages of animism, fetishism, and heroism. These systems developed slowly, of course,

and each world-model was replaced by subsequent ones in popular consciousness just as slowly. The principle of cognition via conceptual models of reality is, nonetheless, evident.

However, the mythological world-picture has one unchanging quality: the model is a false image of reality. Many views about myth focus on this aspect of myth-creation: "myth is invention, a fiction...." (Ratsig 29),⁸ "myth ... is, in its artistic depiction of natural and human social relationships, the form of inverted reflection" (Anisimov 171).⁹ It is not an accident that in everyday understanding the concept of myth is equivalent to the concept of fairy tale, though from a scientific perspective these concepts are not at all identical. At first glance, it is indeed difficult to connect invention, an invented reality, with cognition. But it is the case that the process of the cognition cannot be free of error. Modern science maintains that errors, illusory imaginings about the world, are from the outset characteristic of instrumental, model-constructing human consciousness, since fantasy is born at the same moment as concept formation.

Myth is closely intertwined with errors; in this, its gnoseological roots are hidden. Naturally, numerous preconditions were required for the birth of myth in the syncretic form in which it existed in ancient times. Especially significant is the character of relations between human beings and the primeval community, the inseparability of personal consciousness from the collective's, which can never be revived in our own time. Mythology, as a comprehensive system, has ceased to exist. But regarding the gnoseological roots of myth creation, matters are in our view more complex.

The main causes of the strange world-images of myths are often seen to be the "extremely low level of development of the forces of production and ... the helplessness of human beings vis-à-vis nature," and "the limitless ignorance of primitive man," which V.K. Nikolski considers the fundamental gnoseological source of religion and mythology.¹⁰

The low or high level of the forces of production is, however, far from an absolute concept. We naturally consider ancient collective society's level of productive forces to be low and that of the present to be high. But our descendants in a few thousand years will most likely consider the present level of development to be low. The same pertains to "limitless ignorance": for a supercivilization—if any exists—our cognitive level would also be that of "limitless ignorance." There is no objective criterion of measurement in such matters. We would probably need to find it on the level of information: when insufficient information has been acquired about a given phenomenon, it is impossible to draw correct conclusions. The insufficiency of information alone, however, does not explain how false conclusions and false judgments come into being.

For a long time, people believed that, for the strange and capricious world-picture characteristic of myth creation to come into being, some unusual mode of thought, radically different from today's, was necessary. Potebnya sensed the lack of analysis and criticism in it, and Lévy-Bruhl strove to define the laws of this prelogical thinking. Today, however, a rather different solution is offered: human thought has developed as logical thought from the beginning. This is the

premise of Soviet scientific research into myth, and this is demonstrated by Lévi-Strauss's work. We are interested mainly in the inner unity of the thought of both ancient myth creators and modern humanity.

Marx specifically emphasized the activity of human creative consciousness in the mechanism of myth creation: "All mythology subdues, controls and fashions the forces of nature in the imagination and through imagination" (225).¹¹ The activity of the creative consciousness is the same for ancient times as it is for the present.

It is common knowledge that the human mind is capable of drawing conclusions from incomplete information. In any case, human beings will draw conclusions whether there is sufficient information available or not. Human consciousness cannot abide obscurity, and it will supplement true information, if it is lacking, with false information, and in this way it will put an end to its uncertainty.

Where does false information come from? There can be only one answer: from the "inner resources" of consciousness. When there is not enough information about a given phenomenon, or people are for some reason incapable of acquiring it, they will take information from some other domain and supply the missing links.

This is precisely how ancient myths came into being, when they considered the whole surrounding world to be analogous to what was already known and mastered, and nature appeared in everything to be similar to human society. "Primeval Man makes judgments based on himself and interprets natural phenomena to be the intentional acts of conscious forces," writes Plekhanov (362).¹²

A.M. Zolotaryev, a scholar of the life and mode of thought of primeval humanity, while studying the world-conception of Australian tribes, arrived at the conclusion that "the Australian aborigine views the natural environment through the prism of his own tribe's social organization, and projects the same categorical system that guides him in his everyday life into the external world; ... the tribe's social organization serves as the model for categorizing the external world" (88).¹³

Do the foundations of myth creation, especially the gnoseological ones, disappear with the emergence and development of science? Is active myth creation possible in our day, and what areas can it embrace?

The demise of myth as the false model of reality begins with the recognition of reality, more properly with the new approach to it—"with the disclosure of the real causes of the surrounding world's phenomena," "with the actual domination over the forces of nature" (Marx 225). None of this, however, justifies Gulyga's statement that "a mythic relation to nature is impossible in the 20th century; humanity already dominates over the elemental forces in many respects" (220). This knowledge and this dominance are, after all, not absolute, since all new knowledge reveals a new abyss of the unknown. And science will always pull up short before the secrets of phenomena whose real causes remain obscure to it. Now, it is a characteristic of human consciousness that it does not wait idly for the arrival of new information that might make it possible to draw correct and

unambiguous conclusions, but rather strives to solve the puzzle, to explain the phenomenon on the basis of what is already known, forming the forces of nature with the help of the imagination (Marx). The modes of thought of modern human beings who construct scientific theories and hypotheses, and that of myth-creating ancient people, are different stages in the development of a unitary human logical mode of thought. The emergence of science does not at all eliminate this myth-creating mode of thought. It is true that contemporary “mature” science disapproves of analogy. Scientists often repeat that analogy is not proof. Nonetheless, they could not exist without it, because it is precisely in analogy that the connections among phenomena appear; analogy gives impetus to the workings of the imagination. It is precisely analogy that embodies the fundamental movement of cognition—from the familiar and the known to the unknown and the inexplicable. Wherever analogy has a place there is always an escape hatch for the creation of myth, the construction of a model based on false knowledge of the world.

The history of science is full of examples of such gnoseological myths, when unintelligible phenomena, about which there was insufficient valid information, were explained through causes that in fact had nothing to do with them, yet on the basis of previous experiences were intelligible.¹⁴ The astronomer Pickering, for example, observing certain changes in the moonscapes, explained them as the migration of insects. Herschel thought sunspots to be breaches in a cloud cover. The story of the discovery of Martian canals is well known—they were perceived as analogous to irrigation systems. In any case, the question of inhabitants of other planets is the most rewarding material for the study of the sort of myth construction that science creates in the course of its development, when it encounters the new territories of the unknown.

In *The Universe, Life, Mind* (1965), I.S. Shklovsky quotes two of K.E. Tsiolkovsky’s sayings: “Is it likely that Europe should become populated, and the rest of the world not? Is it possible that one island should be inhabited, and the rest not?” “We may observe each stage of the development of living things on other planets. What was humanity a few thousand years ago, and what will it be a few million years hence? All of this we can discover from the planets” (174).¹⁵ Shklovsky comments that the first opinion remains on the level of classical philosophy, while the second proffers a new thought, in that in the past people believed that the inhabitants of other worlds stood at the same level of social and scientific development as terrestrial humans. The mechanism of both figures is, however, the same—in both cases the unknown civilization is imagined via an analogy with earthly civilization. Simply put, by this time history and ethnography had collected enough information about the different levels of terrestrial development, and this knowledge had become sufficiently widespread that it entered the consciousness of educated people, and this essentially made Tsiolkovsky’s conclusions possible. Let us reiterate that the principle of opinion by analogy remains operative in this case as well.

The problem of extraterrestrial civilizations has become a topic of conversation in scientific circles in the past 10 to 15 years. It is sufficient to think of N.S. Kardashev’s categorization of technological civilizations on the

basis of the possible level of energetics, or Shklovsky's hypothesis regarding the artificial origin of Mars's moons. Freeman Dyson, a professor at Princeton University, hypothesizes that a sufficiently highly developed civilization would strive to use every bit of energy from its star, and, to prevent it from being squandered in space, would construct a special shell around its sun. In fact, we have calculations for this sphere, and proposals are being made about which materials might be appropriate for its construction. There are experiments to approximate the possible number of inhabited planets in the universe, to determine the life-cycles of civilizations, the energetic capacities of supercivilizations, etc. "If we begin from the contemporary pace of earthly civilizations," writes Kardashev, "we might well expect that in such a cosmogonic interval (i.e., after millions of years) the complete conscious reorganization of matter might be possible in this part of the universe" (30).¹⁶ Further, "in our time we may even consider whether the expansion of the observable part of the universe may not be the result of some supercivilization's activity" (40). Scientists presume different methods of establishing contact: with the aid of interplanetary spaceflights, by sending space probes, or through radio contact. Indeed, the first practical experiments have begun in order to establish this contact (the Ozma Project).

But all these studies of the problems of extraterrestrial civilizations have two weak points: 1) they all remain on the level of hypothesis and assumption, for, as S.A. Kaplan remarks in the foreword to *The Universe, Life, Mind*, very little scientific research has been done in the field so far, and 2) all those studies are based on the experience of our own civilization and start from the level, perspectives, and speed of its development.

Now, this is a familiar situation: lacking direct information, the imagination works inexorably along the paths of analogy or extrapolation (because extrapolation in the end is the same as analogy, merely a more complex variant). We find ourselves once again confronted by a tried and true method of "opinion projected from ourselves." It is the same mechanism that constructed the classical myths. It is not an accident that Stanislaw Lem in *His Master's Voice* (1968) calls such ideas outright "a new mythology." Of course, in modern thinking this mechanism operates differently, becoming more complex and diverse.

Thought that is aware of its limitations strives to break free of Earth's gravity—this is how those hypotheses are born that at first glance are completely incompatible with myth, when they attempt to prove that alien life and alien intelligence cannot possibly resemble our own, that extraterrestrial life is governed by completely different laws than ours, etc. We include among these assumptions A. Rych's ideas that alien life might be organized on completely different molecular foundations than earth's. But the same mechanism is at work here, too: 1) the lack of direct information, in certain respects the total lack, in that "neither the study of meteorites, nor of the universe has revealed extraterrestrial organisms" (Ursul 38); and 2) the operation of the imagination drawing sustenance from other sources of information—in this case the

mechanism operates not on the principle of direct comparison, but rather of complete negation.¹⁷

Naturally, we should not identify such models of reality that constantly emerge in the course of cognition with classical mythology directly and completely. We wish only to point out that the gnoseological sources of myth creation (the insufficiency of information), as well as the conceptual mechanisms that give rise to myths, have not disappeared and have not fallen apart completely; they live on in modern scientific thought, although powerfully transformed.

Thus modern gnoseological-philosophical myth, which seeks to explain the whole of Nature in terms of the facts of science, but also contains an element of abstract speculation that goes beyond positive scientific knowledge, grows out of precisely that region of scientific knowledge where exact knowledge ends, i.e., from the territory of guesses and doubts. After all, modern science, modern dialectical logic, does not recognize rigid and immovable boundaries between and among phenomena; the concept of boundary itself is now replaced by that of the “transitional territory,” and every logical structure that has not yet been proven because of a lack of information belongs to this territory of “transition from the known to the unknown” (Kedrov),¹⁸ the categories discarded by rigorous science and unacceptable to exact cognition. It is interesting that in *His Master's Voice* Lem leads his protagonist to admit that his belief that the indecipherable Letter from the Stars is an intentional message of intelligent beings is based only in the irrationality of his faith in the truth of his viewpoint.

Naturally, we must not exaggerate the role such conjectures play in science. For the scientist, all of these reality-models are merely working hypotheses, mere tools in the process of gaining knowledge, and they are discarded when new facts do not support them. Even so, these models have a certain autonomy. They extend far beyond the scientists' study and quite often gain wider social currency. Here we encounter not only the gnoseological roots of modern scientific myth-creation, but its social roots as well, in that the myth born in the breast of science can only exist as popular consciousness. In this context it is appropriate to mention that the myth is also a “model of conduct” (Gulyga), to the extent that it also organizes the relations between human beings and the world.

The connection between popular consciousness and the level of scientific understanding is indisputable, although this connection has not always been direct in every epoch. In human history, for a long while religion stood between popular consciousness and science; science developed in isolation from popular consciousness. Popular consciousness was directed by religion, which also created the myths, which were simultaneously world-models and models of conduct (for example, the myths of Christianity). But somehow at the boundary of the nineteenth and twentieth centuries a break occurred. Religion, though it remained quite powerful, was no longer able to direct and supervise popular consciousness completely. It was compelled to make overtures to science, to adapt its consciously false world-models to the new knowledge. The forced, long-term isolation of science and popular consciousness from each other ceased; exact knowledge now directly forms the consciousness of the masses. The always

existing dependence of everyday thought on scientific knowledge has become evident now. And it is precisely in this period (the nineteenth and twentieth centuries) that a strong need for the popularization of science begins, which society had not felt in earlier times.

The transformation process of scientific knowledge into everyday popular consciousness is complex, but we can identify some regularities. B. Agapov, for instance, in his *The Artist and Science* (1966), proposes some interesting ideas. He notes that many tenets of modern science that

have been expressed in mathematical language accessible only to a few, have entered the everyday consciousness of many people. Psychologically, the same thing is occurring as happened in its day with the Copernican world system. A mathematician once told me that the overwhelming majority of people cannot prove incontrovertibly and scientifically that Copernicus was right, but the overwhelming majority of them is nonetheless certain that he was right. Today a young person, whether he or she is training to be a physician or farmer, has accepted the ideas of relativity theory, and is not amazed at the fact that there is no uniform time, and no empty space, that clockworks depend on mass, and even that, if we were to rush toward the stars at a speed approaching that of light, we could return to Earth where in the meantime a thousand years since our takeoff had passed. This is so, even though the mathematical equations and their justifications will remain intelligible only to specialists. (37)¹⁹

In this meditation Agapov notes some of the regularities of the transformation of scientific knowledge into everyday modes of thought—as gains and losses on this path. Above all, exact knowledge, after it ceases to be the property only of specialists, loses its right to be called exact; it has become approximate knowledge, belief, since its holder is able neither to prove it, nor to provide rationale for it. After all, such a rationale is possible only at the level of mathematical calculations. Popular consciousness simply tosses aside all such calculations when it adopts the scientific world-model, since mathematics has not yet become a fundamental everyday mode of thought. Everyday thought remains up to this day based on the image.

What is the inner logic of this metamorphosis? Above all, the adoption of scientific knowledge by popular consciousness is a necessary precondition for the progress of society as a whole. But at any given moment it is impossible for everyday consciousness to adopt scientific knowledge in its pure form. And here we encounter again the familiar gnoseological-psychological mechanism of myth creation. A process that appears strange at first glance takes place: scientific knowledge becomes myth. The lack of information can have many causes: information might be impossible to acquire, as in the case of extraterrestrial civilizations, or the information may exist, but for some reason it is inaccessible to one or another stratum of lay society. In both cases the mechanisms of myth creation are put into operation—i.e., “projection from oneself,” the substitution of missing information with other information already acquired by consciousness.

The majority of lay people have indeed accepted the theory of relativity, but in what form? One of the most widely held images of it is precisely the one mentioned by Agapov: the astronaut who sails into the universe at a speed near

that of light and returns "home" a thousand years later. Is this an adequate image of the theory of relativity? Most probably not, since it replaces mathematical explanation with an image. This sort of mythologization of scientific knowledge takes place incessantly in science fiction; it is one reason why one often hears that sf translates the abstractions of science into the language of images. But in this case a univalent translation is impossible; the imagistic conceptualization is not independent of the content and becomes a qualitatively different kind of cognition.

Hence, modern gnoseological myths can be produced both within science itself, and alongside it, as an adoption of certain of modern science's basic tenets by popular consciousness, and sf has no small role in the process.

In our time, we can marvel at the great variety of myths. There are myths of man as a biological being, myths of robots increasingly resembling their creators, new slaves now and then rebelling against their masters, and no less clever than they. But the main direction of modern myth creation remains the cosmic life of humanity in the future, and the demolition of beliefs in the cosmic isolation of terrestrial civilization. Even the conflict between humans and machines has moved into Space—indeed, different kinds of experiments in the limits of human physical endurance are directed toward human beings' adaptability to life in Space. In other words, the basic direction of modern myth creation is closely connected to the requirements of the "cosmicization" of everyday consciousness. This leads us to an interesting historical paradox. We mentioned above that modern myth creation does not precede science, but follows behind, and its myths are built on scientific results. Those who reject the notion that sf is proto-science and may anticipate science on the road to truth are correct. Nonetheless, we can speak of a certain kind of precedence. The paradox lies in the fact that at a certain point the requirements of everyday consciousness preceded the possibilities of science. The inner logic of social progress required the profound transformation—the cosmicization—of everyday consciousness, and science did not have the time to construct a solid basis adequate for this need. Only a few dreamer-scientists sensed that humanity is unnoticeably leaving its cradle. Tsiolkovsky was one such dreamer, but the influence of his work on the science of his time was negligible.

The word "cosmicization" was created in 1962. It is barely ten years old. Interstellar contact and the problem of extraterrestrial civilizations have become topical among scientists only in the past 10 to 15 years. Earlier, for many years (more than half a century in fact)—as scientists themselves are compelled to admit—only science fiction dealt closely with these problems. It alone took upon itself the role of educating everyday consciousness, and for a long time it was the only experimental laboratory of myth creation.

Sf anticipated not only modern exosociology, but futurology as well, again not in the sense of the real importance of their true knowledge, carefully worked out theories and concepts, but rather to satisfy the developmental requirements of everyday consciousness.

The world-models created by sf have not remotely passed the tests of exact knowledge in all cases. They are often naive, simplistic, sometimes simply

false—it is no accident that for a long time the scientific world had contempt for sf. These models, however, are worthy of something better than scorn. Despite all reservations—which scientists and critics have often expressed—their role in the general movement from ignorance to knowledge (not in scientific research, but in explaining the world to the whole of society) cannot be judged as entirely negative. At first glance, it may appear strange that a false model of reality, false concepts about reality, which indeed may disorient people, can be proved to be useful, and even necessary. Let us recall how false, from our perspective, were the world-pictures reflected in ancient myths, in which the tiny crumbs of true knowledge were lost, framed in the fantastic. This knowledge—the most valuable achievements of the primeval collective—nonetheless supported humanity in its cruel struggle with the surrounding environment, and it became the guarantee of humanity's further progress. The idea that it was knowledge that helped in this struggle, not errors, is not soothing. Ancient people required the whole world-model that would include both knowledge and error, since their knowledge was insufficient for constructing the whole image of the world. This rule is valid not only for the process of cognition, but also the process of mastering the received knowledge. Its proof is the surprising vitality of many of the errors found in sf. Let us restrict ourselves to one example.

It is now considered indisputable that establishing contact with extraterrestrial civilizations and the exploration of deep space are practically impossible for myriad reasons, even with the aid of interstellar spaceships equipped with the most fantastic photon-drive rockets. If these projects continue to be discussed in scientific, and more often popularizing, works (most often in a disapproving way), it is because of the tradition established not by science, but by science fiction. For in sf, in spite of everything, interstellar spaceships still sail the universe, encountering the spacecraft of other civilizations, which sometimes have been wandering in space for millions of years; astronauts make scientific, or even just “business” journeys, sometimes to alien galaxies, and in conventional science-fictional time all this occurs in the same amount of time as familiar terrestrial journeys. But this is a lie, and an obvious one, and the falseness of such a world-model is comprehensible and evaluable even with today's knowledge. Yet this model of reality stubbornly endures alongside the scientific understanding of the universe. We cannot explain all this in terms of poetic license. In our view, it is less a case of artistic convention than of “mythological” convention, which emerges from the need by everyday modes of thought to appropriate the universe on some level. This is how the image of an “orderly” earthlike cosmos takes shape in sf (Lem), simultaneously resembling the real cosmos, or rather the scientific conceptions of it, while also bearing a striking resemblance to the Earth. In general, this is how—to speak figuratively—the modern mythological picture of the world emerges. It seems almost not to contradict science, although it differs not inconsiderably from the scientific world-picture.

We have no intention of placing an equal sign between modern myth creation and science fiction. First of all, myth creation occurs not only in sf; it is evident in scientific belles lettres, popularizing scientific journalism, and even in “pure” science, insofar as in recent times the “mythological” models of the world have

been constructed by scientists themselves, as we mentioned earlier. Besides, sf is not restricted to myth creation. Sf is clearly a transitional space, a certain passageway.²⁰ This is, on the one hand, the territory of the complex interaction between exact knowledge and everyday consciousness; on the other, it is the territory of the no less complex interaction between myth creation and art. With the passage of time, sf increasingly becomes art—not only because talented writers are attracted to it, but also through its inner meaning. Ever since science has ceased to avoid the problems that had been the dominion of sf, such as the problems of extraterrestrial civilizations or the perspectives of earthly humanity's further evolution, the anticipatory myth-creating function of sf in educating popular consciousness has, in many respects, ceased. The modern mythological picture of the world has already taken shape, and will probably remain so in the future, until we acquire some new direct fundamental information, and it will probably not be shaken even by the discovery of some primitive forms of life on our Solar System's planets. In recent times, sf has created fewer and fewer new ideas and hypotheses. (Nowadays these are usually created in scientists' studies and laboratories.) Sf now elaborates, deepens, and psychologizes already existing "mythological" themes and situations, the already classical themes of alien visitations, extraterrestrial civilizations and their relations, or near-light speed space travel. Historically, nonetheless, myth creation has been one of sf's most important functions, and it has not disappeared entirely. In any case, the meaning of sf is not nearly exhausted at the level of plot or story, and in the course of studying it we can clearly employ concepts like those of Lévi-Strauss's mythologems.

Marx called "real" ancient mythology the arsenal and foundation of classical art. Are the relations between modern myth creation and art similar? In some respects, they must certainly be. In any case, modern mythology has produced an arsenal of new artistic figures: cosmic visitors are no less common in contemporary sf than wizards and witches were in the old tales, and indeed they have ousted the wizards. Moreover, ancient mythology is re-tailored: in our time, the Olympians, and even some heroes of Christian myths, have become alien visitors. Before our eyes, the world of secondary artistic convention is being transformed, and it is happening under the influence of the new mythology.

Whether the modern mythology will become the foundation of art is more difficult to predict—we simply don't have the necessary perspective. But insofar as mythology is directed to everyday consciousness, educating and forming it adequately for the inner needs of social development, and as art and artistic consciousness are much more closely bound to everyday consciousness than to science, we can hypothesize that the modern mythology, connecting in human consciousness Cosmos and Earth, and past, present, and future, prepares the foundation for a new art, which will observe the world and humanity from a different, cosmic, four-dimensional perspective.

NOTES

1. Р. ВАЙМАНН, ЛИТЕРАТУРОВЕДЕНИЕ И МИФОЛОГИЯ (*Literary History and Mythology*). «ВОПРОСЫ ФИЛОСОФИИ», 1970, No. 7.

2. В.Я. ПРОПП, ИСТОРИЧЕСКИЕ КОРНИ ВОЛШЕБНОЙ СКАЗКИ (*The Historical Roots of the Wonder Tale*). ЛЕНИНГРАД, ИЗД-ВО ЛЕНИНГРАДСКОГО ГОСУДАРСТВЕННОГО ОРДЕНА ЛЕНИНА УНИВЕРСИТЕТА, 1946.

3. Trencsenyi-Waldapfel Imre. *Mitológia*. Budapest: Akadémiai Kiadó, 1968.

4. С. АВЕРИНЦЕВ. «АНАЛИТИЧЕСКАЯ ПСИХОЛОГИЯ» К.-Г. ЮНГА И ЗАКОНОМЕРНОСТИ ТВОРЧЕСКОЙ ФАНТАЗИИ (*The “Analytic Psychology” of C.G. Jung and The Creative Imagination*). «ВОПРОСЫ ЛИТЕРАТУРЫ», 1970, № 3.

5. А. ГУЛЫГА, ПУТИ МИФОТВОЧЕСТВА И ПУТИ ИССКУСТВА (*The Paths of Myth Creation and Art*). «НОВЫЙ МИР», 1969, № 5.

6. А.Ф. ЛОСЕВ, АНТИЧНАЯ МИФОЛОГИЯ В ЕЕ ИСТОРИЧЕСКОМ РАЗВИТИИ (*The Historical Development of Ancient Mythology*). М. УЧПЕДГИЗ, 1957.

7. А.Д. УРСУЛ, ОСВОЕНИЕ КОСМОСА (*The Conquest of Space*). М., МЫСЛЬ 1967.

8. С.И. РАДЦИГ, ИСТОРИЯ ДРЕВНЕГРЕЧЕСКОЙ ЛИТЕРАТУРЫ. (*The History of Classical Greek Literature*). М., «ВЫСШАЯ ШКОЛА», 1969.

9. А.Ф. АНИСИМОВ, ПРИРОДА И ОБЩЕСТВО В ОТРАЖЕНИИ СКАЗКИ И МИФА (*Reflections of Nature and Society in Tale and Myth*). «ЕЖЕГОДНИК МУЗЕЯ ИСТОРИИ РЕЛИГИИ И АТЕИЗМА», т. 1. Л., АН СССР, 1957.

10. В.К. НИКОЛЬСКИЙ, ПРОИСХОЖДЕНИЕ РЕЛИГИИ И ВЕРЫ В БОГА (*The Origins of Religion and Belief in God*). Сб. «ВОПРОСЫ ИСТОРИИ РЕЛИГИИ И АТЕИЗМА», М., 1955, № 3.

11. К. МАРКС, К КРИТИКЕ ПОЛИТИЧЕСКОЙ ЭКОНОМИИ (*Critique of Political Economy*). 1953.

12. Г.В. ПЛЕХАНОВ, ИЗБРАННЫЕ ФИЛОСОФСКИЕ ПРОИЗВЕДЕНИЯ (*Selected Philosophical Works*). т. 5. М., ГИПЛ 1958.

13. А.М. ЗОЛОТАРЬЕВ, РОДОВОЙ СТРОЙ И ПЕРБОБЫТНАЯ МИФОЛОГИЯ (*The Clan System and Primeval Mythology*). М., «НАУКА», 1964.

14. To a certain degree, these definitions are hypothetical, in so far as truly syncretic myth has long ago ceased to exist. This is beyond doubt. Nonetheless, many gnoseological, psychological, and social processes that stimulated the creation of ancient myths survived in subsequent epochs, and became manifest in different ways, generating forms that are perhaps not myths in the strict sense of the term (that is, they were not completely identical with unified syncretic myths), but nonetheless have a generic relationship, though their functions are different, with regard to the more advanced and wide-branching forms of social consciousness. Maybe science will find another term for such phenomena. It has not yet done so.

15. И. ШКЛОВСКИЙ, ВСЕЛЕННАЯ, ЖИЗНЬ, РАЗУМ (*The Universe, Life, Mind*). М., «НАУКА», 1965.

16. «ВНЕЗЕМНЫЕ ЦИВИЛИЗАЦИИ. ПРОБЛЕМЫ МЕЖЗВЕЗДНОЙ СВЯЗИ» (*Extraterrestrial Civilizations*). ПОД. РЕД. ПРОФ. С.А. КАПЛНА. М., «НАУКА», 1969.

17. This principle of judgment works with especially restricted possibilities; whenever we try somehow to make this idea concrete, we have to return once again to some comparison, and then a certain “current of thought” or “ocean of thought” takes form. The circle closes.

18. Б.М. КЕДРОВ, ДИАЛЕКТИЧЕСКАЯ ЛОГИКА КАК ОБОЩЕНИЕ ИСТОРИИ ЕСТЕСТВОЗНАНИЯ (*Dialectical Knowledge as the Generalization of the History of Knowledge of Nature*). В кн.: «ОЧЕРКИ ИСТОРИИ И ТЕОРИИ РАЗВИТИЯ НАУКИ». М., «НАУКА», 1969.

19. Б. АГАПОВ, Д. ДАНИН, Б. РУНИН, ХУДОЖНИК И НАУКА. (*The Artist and Science*). М., «ЗНАНИЕ», 1966.

20. Modern science, which studies not only phenomena and systems but also their relations to each other, constantly encounters the need to study such “passageways.” Y.A. Ponomaryov, for example, studying the problem of intuition, writes: “If the world is a system of interacting systems, then all these systems must be linked not only internally, but to each other. For nearby systems there must be passageways, one of whose ends can be found in one system, the other end in another one” (*Psyche and Intuition* [Moscow: 1967]).

ABSTRACT

SF functions in contemporary life as a form of myth creation. Myth has a gnoseological function for archaic societies; it creates a whole world-picture by complementing accumulated empirical knowledge with analogies drawn from familiar experience. Thus world-models are structurally similar to myths, combining cognition and fiction. All writing that explains scientific knowledge at the level of popular consciousness also works in this manner; in the figures of sf, it overtly resembles myth creation.