



## Between Science Fiction and Science of History: *El corazón de la serpiente*.

Entre la ciencia ficción y la ciencia de la historia: *El corazón de la serpiente*.

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### ABSTRACT

This article deals with the science fiction novel *The Heart of the Serpent*, by the Soviet Ivan Efremov, and shows what we identify as an ideological vindication of the Marxist theory of history or historical materialism; and the influence that said ideological content has on the conception of science fiction that Efremov adopts and, in a meta novel exercise, he exposes in his mentioned work is studied. For this, some characteristics of Soviet science fiction in general, and the particularities of Efremov's work will be exposed. In the same way, he realizes the essential aspects of Marxist theory of history, a theoretical aspect on which Efremov bases the difference of science fiction produced in the "capitalist world", and his fiction of the future world and the extraterrestrial contact that It must be based on scientific aspects, since history as a science that manages to delineate aspects of the future society.

**Keywords:** Science fiction. Ivan Efremov. Ideology. Socialist literature. Historical materialism.

### RESUMEN

En este artículo se aborda la novela de ciencia ficción *El corazón de la serpiente*, del soviético Iván Efremov, y se evidencia lo que identificamos como una reivindicación ideológica de la teoría marxista de la historia o materialismo histórico; y se estudia la influencia que dicho contenido ideológico tiene en la concepción de la ciencia ficción que Efremov adopta y, en un ejercicio de meta novela, expone en su mencionada obra. Para esto se expondrán algunas



características de la ciencia ficción soviética en general, y las particularidades de la obra de Efremov. De igual forma se da cuenta de los aspectos esenciales de la teoría marxista de la historia, aspecto teórico en el que Efremov fundamenta la diferencia de la ciencia ficción producida en el “mundo capitalista”, y su ficción del mundo futuro y el contacto extraterrestre que propone debe basarse en aspectos científicos, pues la historia como ciencia que alcanza a delinear aspectos de la futura sociedad.

**Palabras Clave:** Ciencia ficción. Iván Efremov. Ideología. Literatura socialista. Materialismo histórico.

## Efremov and Soviet science fiction

Although in Spanish-speaking countries the study of Soviet science fiction is still scarce, in the United States five decades ago these studies had great momentum, possibly because of the needs to know the Soviet reality during the ideological dispute that led to the Cold War and also because, towards the 60's, this genre had a new boom in the Soviet Union.

Science fiction stories in the USSR highlight three stages. The first refers to science fiction written shortly after the revolution and during the period of the New Economic Policy, when the book market came to have about 100 translated titles of American and European science fiction literature. (Suvin, 1971, p. 150). Subsequently, a new stage began in the 1930s, considered a weak era for ideological reasons attributed to the impulse of Zhdanov's socialist realism (Suvin, 1971; Glad, 1982; Scott, 1982; Matthew, 1988;). The third stage begins in the mid-1950s and extends for two more; it is considered a period of revival of science fiction (Rullkotter, 1974; Nudelman, 1989). Ivan Efremov's work of science fiction is set in the latter period, together with the brothers Boris and Arkadij Strugatskij, two of the most representative authors for the 1960s.<sup>1</sup>

Ivan Efremov's work had a great reach both in the Soviet reading public and that of other nations; in addition, it inspired within the Soviet Union a group of science fiction writers called the "young guard", which claimed to be part of the Efremov School. Efremov's best-known work is *The*

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<sup>1</sup> The most widespread work of Boris and Arkadij Strugatski stand out is *Picnic extraterrestrial*, the latter inspired the film *Stalker* by Andrei Tarkovski.



*Nebula of Andromeda* (1956), whose translation into Spanish by Editorial Progreso appeared in (1965); then there are others such as: *El país de la Espuma*, *La hora del toro* de (1968), *Naves de estrellas* (1948), and *El corazón de la serpiente* (s/f).<sup>2</sup>

Efremov's novels, in addition to being inescapable in the general studies of Soviet science fiction, have also been the subject of multiple specific studies,<sup>3</sup> In addition to this, in recent decades within soviet science fiction studies there is a tendency to highlight the supernatural, occult and millennial aspects that underlie the plot, as well as the possible political dissent of the authors from the Soviet government, and Efremov's work has also been analyzed under this approach.

Thus, the analyses of Soviet science fiction have set aside the analysis of what would seem to be the most obvious aspect of such literature: the socialist ideological charge and the possible influence of Marxism. This may be because it is assumed that aspects of socialist realism are found in Soviet literature, despite the themes of the literary subgenre (Brandis, 1950). However, the ideological aspect that stood out the most was that of socialist realism, whose guidelines were given by Andrei Zhdánov at the First Congress of Soviet Writers in August 1934.

An example of the result of linking socialist realism with other aspects of Soviet reality was as follows:

On the one hand, in terms of socialist realism, future social and especially scientific developments had to be popularized in the spirit of socialist construction, while, on the other hand, it was also expected that it would anticipate future developments in terms of Maxim Gorky's definition of myth and folklore. (Schwartz, 2011, p. 216).<sup>4</sup>

<sup>2</sup> The Heart of the Snake was published in Russian in 1959, no however, the Spanish edition that will be used in this article does not have a record of the year of edition, so the year of its publication in the original language will be used, this because it is considered that it contributes to locate the work in question.

<sup>3</sup> See for example: Grebens (1978), *Ivan Efremov's Theory of Soviet Science Fiction*. New York: Vantage Press; Brandis and Dmitrevskii (1963), *Cherez gory vremeni. Ocherk tvorchestva I. Efremova*. Moscow.

<sup>4</sup> The Translation from English of this text and the rest of the citations of articles in English was made by the author of the article that is proposed for publication.



It has also been studied how socialist realism combined with Soviet scientific and industrial development to express itself in science fiction (Tucker, 1974, p. 194). Another ideological aspect studied is the struggle between socialism and capitalism; part of the theory of Soviet Marxism and later of socialist realism, was expressed from the first works of science fiction elaborated after the October Revolution with the constant criticism of the "old capitalism in Europe and America". (Suvin, 1971, p. 5).

However, socialist realism is not the only Marxist ideological aspect that influenced Soviet science fiction, although analyses have focused mainly on it and few have highlighted the presence of other aspects of Marxism. An example of this is the one studied (Nudelman, 1989). Therefore, despite the ostensible recognition that Soviet science fiction may be loaded with ideological aspects of Marxism, little progress has been made in this direction, perhaps because in order to situate the existence of Marxist theoretical postulates within Soviet works of science fiction requires knowledge and familiarity with the orthodox Marxist theory that spread in the Soviet Union.

Similarly, little progress has been made in the study of the type of relationship between science and man that is expressed in Soviet science fiction, an aspect that can be addressed given that science fiction when discussing possible future aspects of science also reflects on the implications of the social applications of new technical-scientific knowledge. In projecting the future society, Soviet literature considered the existence of communism on planet earth, so it was emphasized that the relationship between science and man must be harmonious: "In socialist society, the growth of science and technology, whatever their magnitude, is the growth of man's own forces" (Volkov, 1975, p.8).

This differs from the relationship between man and science within capitalism, where, according to Soviet author Volkov:

[...] man loses the notion that science and technology are the product of his own activity and assigns to them independent life and mystical power over people, becoming the embodiment of the relationships that dominate man and that spoil him physically and morally. (1975, p14).



That is, the relationship between man and science implies a process of alienation that can lead to *machiaphobia* or to deify consciousness. For the Soviets this was the foundation that led American science fiction, when imagining future society and the impact of new technologies on it, to materialize in the production of dystopias (Jameson, 1982, p.153).

Faced with the dystopia of American science fiction and the capitalist world, in the Soviet Union this literary genre resulted in utopia, partly due to the ideological burden that socialism-communism should show as a social system superior to capitalism, hence Frederic Jameson affirms that "what is ideological for the Soviet reader can be utopian for us" (1982, p.155). However, the fact that in science fiction in the capitalist world it expressed fruits in which man comes into conflict with machines, where humanity comes into conflict with extraterrestrial beings, is also part of the extrapolation of capitalist reality to literature, that is, both the science fiction of capitalism and that produced in the socialist world can be appreciated conscious or unconscious ideological aspects.

In the way writers conceive of the future, the relationship between humanity and science, humanity and extraterrestrial beings, there are other Marxist ideological aspects. In that sense, it is no coincidence that in Soviet literature:

[...] aliens were conceived as friends and not as hostile invaders, not as colonizers intended to remain on earth, but rather as temporary visitors, who possibly had a positive influence on human history and always signaled hope for the future. (Schwartz, 235).

Thus, in the future imagined by the Soviet literati two ideological aspects could be expressed: 1. The interest of presenting socialism as a social system that offered more benefits to humanity than capitalism; 2. The Marxist ideology that maintains that the transition of society towards socialism was based on historical-social laws, or as Rafail Nudelman says, science fiction as an ideological expression can be considered as a "cognitive model of real changes and of a particular ideology" (Nudelman,



1989, p.38). The first aspect has already been studied for some works; regarding the second aspect we will analyze its presence in *The Heart of the Serpent* (s/ f) by Ivan Efremov.<sup>5</sup>

## The Science of History

Orthodox Marxism considers the discipline of history to be a science, this is based on the theory of history or historical materialism. For example, the Soviet manual of theory of history most widespread in the USSR states:

Historical materialism is the science of the most general laws governing the development of societies [...] it deals with the laws of the development of society as a whole, with mutual relations over all aspects of social life. (Konstantinov, 1956, p.1).

Similar claims that postulate history as a science can be found in the works of authors such as Evgeny Zhukov (1982) and Ernesto Schettino (1981).

The character of science that orthodox Marxism gives to history and related disciplines was not a minor thing within Soviet society. The testimony of the historian and archaeologist Gordon Childe on his visit to the USSR makes it clearer:

Archaeology and anthropology are classified as sciences in the USSR, and along with other social sciences are listed under the aegis of the Academy of Sciences in the same way as the natural sciences. Hence, during the war archaeologists and anthropologists have been "reserved" as well as geologists and physicists. (Bunge, 1947, p.61).

When considering history as a science, it was also attributed characteristics such as having general laws and, therefore, the possibility of being useful for the prediction of the possession of future events (Schettino, 1993). Among the historical aspects that Marxism predicts in the future is the replacement of the capitalist system by socialism-communism, hence Soviet science fiction

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<sup>5</sup> The Spanish edition that we use for this article does not have a year of printing, but to identify this work we will use the year of 1959 in which the book was published in Russian.



postulated future human development as a communist society. To better understand the theoretical implications of this projection, the main historical-social laws must be taken into account: Law of the determining role of the mode of production in society; Law of the correspondence between productive forces and relations of production for the passage from one mode of production to another; Law of the relationship and mutual determination between the base and the superstructure. The essence of these laws is expounded by Marx in the "Prologue to the Contribution of the Critique of Political Economy" (Marx, 1970, pp37-43).

Reference to modes of production was a constant in Soviet science fiction. In Alexander Bogdanov's early work, *Red Star* (2010) it is proposed that on Mars society has reached a socialist mode of production. On the other hand, the novel *How difficult it is to be God* by Arkadi and Boris Strugatski (1970) raises the contact of humans from a communist society with beings from another planet whose social development has the characteristics of the feudal mode of production. Although Nudelman has observed that the science fiction of the third stage "provided readers with a method and a model for understanding history" (1989, p.50), in his analyses he does not go so far as to delve into the features of the materialist conception of history that are expressed in such works, which is the theory of modes of production.

Nudelman states that "Aspects of the historical-social reality of the earth were taken into space, this leads to talk of planetary revolutions" (1989, pp.40-41). However, although the most widespread aspect of Marxist theory is the class struggle, in the "Prologue to the Contribution of the Critique of Political Economy", Marx exposes the central elements of his conception of historical development and omits the class struggle as the motive of history, but he does refer to the Law of the correspondence between productive forces and relations of production, which explains the substitution of one mode of production for another and it is the more general historical law that foresees the imminent arrival of socialism.

The other law of historical materialism is that of the relationship and mutual determination between the base and the superstructure, which states that the material basis of society ultimately



determines the ideological aspect; it states that the material basis of society determines aspects of thought.

This aspect we have already mentioned that it was the basis for the Soviets, based on their conception of society, to establish that contact with extraterrestrials would be peaceful; they reflected in their conception of society, not one of conflict, expansion, war or exploitation. This law of history applied to the analysis of Soviet science fiction would explain why American science fiction expressed futures of interplanetary conflict.

To arrive at this reflection on the presence of aspects of Marxist theory in science fiction, it had an early expression not in a literary critic but in the writer Ivan Efremov, who in his novel *The Heart of the Serpent*, captures through his characters a reflection of ideological aspects the principles of historical materialism. Let us remember that Efremov, once he became a researcher of paleontology, had contact with the Soviet Marxist conception of the natural and social sciences, so it is not surprising that he knew aspects of historical materialism; in addition, historical materialism was the official view of history taught in the Soviet Union.

An example of the reflections of his characters that make explicit aspects of the Marxist theory of history is given by Mut Ang, the captain of the ship Tellurius that leads to the human expedition. This character, when speaking about the importance of the research work done by the expedition, and when referring to the development of knowledge and society, highlights the dialectical development in spiral: "every century of its history, humanity regressed in something, despite its general ascent according to the law of spiral development. Each century had its particularities and its common features..." (Efremov, 1959, p.18).

The same character gives another example of how the men of the "ancient world" conceived of history. In this case, the progressive vision of the future change of socialist society from capitalism stands out and not the look at the past or reactionary conception: "People involuntarily sought the good in the past, dreaming of its repetition, and only strong spirits had known how to foresee and intuit the inevitable improvement in the organization of human life that the future offered them" (1959, p.50). This fragment, without referring to them, makes explicit to the theorists of Marxism:





he addresses a panegyric to them. In the USSR there was a debate against populists and economic romanticism (Lenin, 1970), but it is an aspect that Marx and Engels already expressed in the Manifesto of the Communist Party when talking about utopian socialism or reactionary socialism (1972, pp.81-94).

But the aspect that Efremov highlights most in this novel is the relationship between base and superstructure, and he does so starting from the idea that artistic-literary productions, being a form of science, respond to the material base of society. In proposing this reflection, he also presents an exercise in a meta novel, since in his novel the science fiction characters reflect on the writing of it. This is expressed as follows: in communist society humanity has already fully developed, all idealistic aspects based on ignorance have disappeared: "In ancient novels mysterious ruins always appeared, unknown depths, inaccessible heights, and before that, groves, fountains and handles enchanted, cursed, endowed with magical forces" (Efremov, 1959, p.30). Also Mut Ang, reflecting on history, thinks: "In historical novels everything is described in such a vivid and entertaining way [...] The times that had been commented and described, in the old novels, the loneliness of the fallen man in the future! [...]" (p. 41).

The reflection on the novel is enriched more when it comes to science fiction novels. Again it is through Mut Ang that he addresses the crew member Kari Ram:

And do you know how our ancestors represented, already in the initial epoch of the assault on space, the first encounter with the inhabitants of other worlds? Like a war clash in which the ships were brutally destroyed and the men annihilated each other. [...] Our modern literati write nothing of the dark period of capitalism's decadence. But you know, from the history manuals used in school, that our humanity went through a rather critical period of development in its time. (1959, pp.47-48).

By itself, this fragment contains aspects such as references to the mode of production, and, as we have said, to the explanation that, under the capitalist economic base, the way of thinking of the future was related to warlike elements. It should also be noted its reference to the history being



known by textbooks in school, because the literati of the future society did not write about the "decadence of capitalism". The quoted fragment allows Efremov to link the reflection on the novel to the reflection on the theory of materialist history, which allows him to discuss the possibilities that the imagination of the future society is based on the science of history.

These aspects of materialistic theory of history are reinforced by the plot of another character, Kari Ram:

When human beings had already learned to master matter and space, social relations still retained their old forms and the development of social consciousness was also lagging behind the advances of science. (Efremov, 1959, p.48).

To better understand the reference to this aspect, let us recall what Marx says in his aforementioned Prologue:

Upon reaching a certain stage of development, the material productive forces of society collide with the existing relations of production [...] Of the forms of development of the productive forces, these relations become their obstacles. And thus an epoch of social revolution opens. By changing the economic base, the entire superstructure erected on it is revolutionized more or less quickly. (1970, p.40).

When Efremov speaks of the mastery of matter and space he is portraying the high degree of development of the productive forces, and openly mentions that social relations were delayed, that is, he speaks of the epoch of social revolution. It also refers to the idea that the consciousness of society was fragmented with respect to the productive forces, and this is also to recover the central idea of Marx's quoted text, since it explains that consciousness is delayed since it was necessary to change the structure or economic base, that is, to resolve the contradiction between productive forces and relations of production by disappearing the existence of private ownership of the means of production. But this backward consciousness is also addressed in Marx's prologue, when he says that in the study of epochs of social revolution material and ideological changes must be considered.



Let us remember that, for the Marxist vision, literature is an ideological expression, an expression of the consciousness of society, and in this regard Marx mentions:

And just as we cannot judge an individual by what he thinks for himself, we cannot judge these epochs of revolution by his consciousness either, but, on the contrary, this consciousness must be explained by the contradictions of material life and by the conflict between the productive forces and the relations of production. (1970, p.40).

For Marxism an expression of the consciousness of the epoch of social revolution would be materialized in science fiction novels, and one would think that the one they express is unreliable, since they respond to that backward consciousness regarding material development. This does not apply to all science fiction novels, but to capitalist ones, or those that do not pay attention to the contradiction of productive forces/relations of production. In this understanding, Soviet novels would attend to a more faithful vision of reality. This raises at the same time the problem of whether it is possible to affirm that there are novels whose fiction of the future society could be more attached to the science of history and others that are not, which would lead us to think about the possible postulation of science fiction novels that are hard and soft with respect to the postulates of the science of history.

Returning to the expository thread of the materialist theory of history, which we consider so far goes hand in hand with the "Prologue to the contribution of criticism..." Marx's Efremov, seeking to be as precise as possible, makes Mut Ang reply to Kari Ram:

The definition is almost exact. You have a good memory, Kari. But let's put it, in other words: The knowledge and mastery of the universe clashed with the primitive mentality of the individual owner. The future and health of humanity were on the scales of destiny years before progress triumphed and mankind formed a single family in a classless society. In the capitalist half of the world, people did not see new ways of development and considered their social formation as something eternal and immutable, which would degenerate in the future, into inevitable and suicidal wars. (Efremov, 1950, p.48-49).



Again it is stated that backward thinking corresponds to the capitalist relations of the "individual owner", and this came into clash with the development of the productive forces, that is, with the "knowledge and mastery of the universe". This fragment seems to translate the theoretical aspects into a more accessible form, or that gives it a pedagogical character. It can also be noted that Efremov accuses the capitalist world of conceiving society as immutable, an aspect that towards the end of the cold war would be reflected theoretically in Francis Fukuyama's *The End of History*, and therefore conceive that war is an inherent aspect of society. Thus, the law of the correspondence between productive forces and relations of production, and the law of the determination of the material basis on the ideological structure are endorsed.

Once the theoretical aspects of history on which Efremov is based are made explicit, the reflection he makes of the science fiction novel as a characteristic expression of the ideology of either the capitalist or socialist system is better understood. To talk about science fiction in the capitalist world, in the voice of Mut Ang he expresses: "I have in my library of historical films a very characteristic book of those times..." (1959, p.50). The text to which Efremov explicitly refers through his character (1959, p.69) is *First Contact* (1945), a science fiction writing by the American Murray Leinster. The link between *The Heart of the Serpent* and *First Contact* has already been pointed out by other authors, (Barrett, 2012; Suvin, 1971, p.115), however, little has been delved into the theoretical significance of this regency that allows Efremov to lecture on the genre of science fiction and historical materialism.

The reflection that Efremov presents of the aforementioned text is thatthere:

The encounter in space would mean only trade or war. Nothing else fit in the author's mind. [...] He made it clear that the captain of the other ship, guided by social knowledge as primitive as that of the people of Earth, had been racking his teeth to the problem of how to escape alive from that appalling situation, without destroying the ship of theEarth. (1959, p.70).



In this fragment, the fundamental criticism that Efremov directs to the text of Murray Leinster is that he conceives of war as an eternal and universal form of social relationship, since both the extraterrestrial and terrestrial ships, even though they are the first contact, enter a moment of tension when considering that they are most likely to be attacked, on the contrary.

This contrasts with Thomas Barrett, who considers that Leinster had an almost neutral position during the Cold War because it "did not provide leftist criticism of American society or conservative alarms against Soviet threats" (Barret, 2012, p.95-96). This does not imply that he did not have a conscious or unconscious ideological position, in fact, he comes to consider that the accusation that Efremov makes of warmongering to *First Contact* is incorrect because, unlike other science fiction texts where there is war between beings from different planets, in *First Contact* this does not happen. In Efremov's eyes, the warmongering conception is present from the moment the possibility of belligerence between societies that have conquered space is raised. In this way again Efremov highlights the superstructure structure relationship, since he attributes to the capitalist economic system "the reason for the war ideology, the propaganda of the idea that wars are inevitable and eternal in the Cosmos"(s/f,p.78), and adds that this is the quintessence of evil in the heart of the serpent.

For Efremov, who wrote from a socialist conception, the first contact between rational beings of different plants could not be war or aggression, since it was understood that both humans and other beings should perish in a communist society:

Humanity cannot overcome space as long as it has not adopted the higher mode of life in which there is no place for war and in which everyone feels responsible for everyone. [...] Humanity was not able to overcome the forces of nature on the cosmic plane before it had ascended to the upper reach of communist society. (1959, p.81).

Although *The Heart of the Serpent* has been studied as a response to *First Contact*, it is possible to consider Leinster's text to be just one example, and that Efremov's real aspiration was to make a widespread critique of the science fiction of the capitalist world. This is based on the therefore that,



by relying on the Marxist theory of the base and the superstructure, it would be generalizing the criticisms of *First Contact* for the whole of science fiction elaborated in capitalist nations.

In addition to pointing out that capitalist science fiction has a non-scientific ideological basis, Efremov postulates that another way of imagining the future is possible, and that this could be based on the laws of the science of history. It is a confession on the part of Efremov that his novel was thought based on the science of history. This reflection on the possibility of imagining the future society based on the science of history would lead to the following problem for science fiction: does science fiction based on the science of history lose a cut of fiction? It cannot lose the fictional essence, but the science of history would give a frame of reference, in addition to the one that, even accepting history as a science, it could not but give us general traces of general laws and not specificities.

### The other rational beings

Just as Efremov uses the materialist theory of history as a basis for imagining the future, he also relies on other aspects of Soviet Marxism to give a more real basis to the form that aliens could have. Here the author closely follows Marxist theory in its definition of consciousness as "the product of matter, the fruit of its development, that is, a highly organized property of matter" (Arjipsev, 1966, p. 131), which implied a relationship between consciousness and human physiology (Shorokhov, 1979), which would imply that consciousness and the brain, organ that allows the existence of consciousness, they are interrelated. Efremov expresses this through his characters' reflections on what these other rational beings might look like:

[...] humanity had long ago rejected the now very fashionable theories that rational beings could exist under the most diverse organic forms and structures. [...] In reality, the anatomy and physiology of man – the only being on Earth endowed with a brain capable of reasoning – were not a whim of nature, but represented the maximum degree of adaptation to the environment and corresponded to the ability of the brain and the entire nervous system to develop a great activity. (1959, p.62).



The conclusion of Efremov's characters derives from the idea that "Every rational being of another world, exploring the Universe, must be, by this very fact, as perfect and universal as the men of the earth and therefore just as beautiful" (1959, p.62). With these reflections based on dialectical materialism or Marxist philosophy of Soviet court, science fiction writings are presented with a framework to be able to run with a theoretical basis about the forms of rational beings from other planets.

This explains why when Efremov's human characters come into contact with the other beings, they are described with a corporeity very similar to that of humans, to the extent that "Among them there were, evidently, women, judging by their long and ben-formed necks, by the roundness of their features and by their short and very thick manes. Men were taller and stockier, had a wider chin and, in general, the same particularities that differentiated them from the opposite sex on earth" (1959, p. 62).

Thus, for Efremov not only the historical-social laws of Marxism have a universal character, but also the philosophical conceptions regarding consciousness and matter have a universal character that allows us to foresee some material aspects of the rational beings of other planets. Efremov bases his fantasy of societies and rational beings from other planets on Marxist ideology, thus seeking to distinguish himself from science fiction that does not take Marxist theory as a guide.

## Conclusions

Although some studies on the work of Ivan Efremov have shown the existence of occult and dissident aspects and conceptions of Soviet ideology (Nudelman, 1989, p. 55), in *The Heart of the Serpent* the use of Marxist theory regarding historical-social reality and the relationship between matter and consciousness becomes evident. In this way he does a propagandist work in favor of communism, but also a diffusion of aspects of Marxist theory.



The opposition between capitalist and socialist system makes this work an expression of the Cold War, however, the basis of the defense of socialism appeals more to aspects of theoretical order than to the opposition of cultural and religious value systems as proposed by Nudelman (1989, p.59) This allows theoretical reflection on the foundations of the transformation of historical-social reality, which entails a reflection on the ways of imagining the future society based on the theory of the modes of production and the law of correspondence between the productive forces and the relations of production. In addition to this, by applying the law of the determination of the material basis on the superstructure, he proposes the "scientific" way in which the future society should be imagined.

The set of these reflections lead us to affirm that for Efremov the science fiction of the capitalist world starts from erroneous and non-scientific ideas of the future of society, so that they transfer ideological aspects of capitalism to the future and extraterrestrial encounters, such as aggression and war. At the same time Efremov in his novel gives an example of the ways in which the interplanetary encounter and the future society must be prefigured. This leads Efremov to plan for the possibility of the existence of hard science fiction, in the sense that it is based on the science of history, and soft science fiction that would be based on "bourgeois ideology".

This poses a number of problems for literary theory. Efremov's science fiction, specifically *The Heart of the Serpent*, responds to postulates of the science of history, but it is still a science fiction novel. Therefore, it can be concluded that this work is halfway between science of history and science fiction. This proposal again gives aspects for literary theory to investigate the boundaries between literature and history, in this case, the boundaries between the science of history and science fiction.

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