

Pedagogická Jihočeská univerzita fakulta v Českých Budějovicích Faculty University of South Bohemia in České Budějovice

## Jihočeská univerzita v Českých Budějovicích Pedagogická fakulta Katedra Anglistiky

# Závěrečná práce

# The Message of Arthur C. Clarke's 2001: A Space Odyssey and its Contribution to the Development of Science Fiction

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### **Abstract**

KLUČKA, Š. (2017): The Message of Arthur C. Clarke's 2001: A Space Odyssey and its Contribution to the Development of Science Fiction. Final Thesis. University of South Bohemia in České Budějovice, Faculty of Education, Department of English. 22 p.

The final thesis introduces Arthur C. Clarke's 2001: A Space Odyssey as a breakthrough novel for science fiction literary genre. Initially, the work presents the author's life and his writing style perception in contemporary literature. This introductory part is followed by an analysis of the historical and political context and its impact for the story. It is mainly focused on space exploration race, nuclear weapons and the Cold War that reached its peak at the time of the creation of the novel. Considering the context, the thesis introduces other important sources of Clarke's inspiration, for example his previously written short story: The Sentinel, about a discovery of an extraterrestrial object on the Moon, or Friedrich Nietzsche's philosophy in Thus Spoke Zarathustra. Furthermore, it offers several possible interpretations of the most notable and incomprehensible motifs and discusses its overall message for readers. Because of Clarke's cooperation with the director Stanley Kubrick, who had published the film adaptation before the book was issued, the final part deals with the main differences in their conception.

**Keywords:** 2001: Space odyssey, sci-fi, fiction, extraterrestrial, evolution, Clarke, Kubrick, space exploration

Anotace

KLUČKA, Š. (2017): 2001: Poselství díla 2001: Vesmírná odysea a jeho přínos vývoji

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Závěrečná práce představuje dílo Arthura C. Clarka, 2001: Vesmírná odysea, jako důležitý

moment ve vývoji science fiction. Zpočátku se práce soustředí na autorův život a vnímání

jeho neobvyklého jazykového stylu v soudobé literatuře. Na úvodní část navazuje

historické zasazení příběhu do historického kontextu doby, ve kterém kniha vznikala.

Hlavní pozornost je zde upřena na souvislost s objevováním vesmíru, Studenou válkou

a s ní spjatou hrozbou atomové bomby. Tento kontext dále doprovází analýza ostatních

klíčových děl či podnětů, které autora inspirovaly ve své tvorbě, jde například o jeho starší

povídku Hlídka, popisující objev mimozemského monolitu na Měsíci, nebo filozofii

Friedricha Nietzscheho z knihy Tak pravil Zarathustra. Dále práce nabízí některé způsoby

interpretace důležitých a mnohdy těžko uchopitelných motivů a shrnuje možné poselství

díla. Protože samotná kniha vyšla déle než filmová adaptace Stanleyho Kubricka, která

vychází z Clarkovo scénáře, práce rovněž popisuje tuto netradiční spolupráci a hodnotí

rozdílné pojetí filmu a knihy.

Klíčová slova: 2001: Vesmírná odysea, sci-fi, beletrie, mimozemská civilizace, evoluce,

Clarke, Kubrick, objevování, vesmír

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### 1. Introduction

Two thousand one, a prophetic year referring to "the future" technological maturity and international cooperation of human's expansion across the universe. On the basis of astrophysical knowledge at the very beginning of the Space age, Arthur C. Clarke and Stanley Kubrick had collaborated on a screenplay for the movie that had preceded the introduction of the novel 2001: A Space Odyssey (henceforward 2001). The breakthrough piece of work that has influenced science fiction genre undoubtedly contributed to its themes by new philosophical thoughts, a lot of symbolism that might be considered almost surrealistic and strict scientific accurate approach.

The thesis deals with its real impact for the genre and tends to clarify the major themes and their possible interpretations in the context of contemporary social and political issues. Another objective is to analyse the mutual interference with the movie that had unconventionally preceded the publishing of the novel. Although the novel was released almost two months after the movie, the central theme of the story is inspired by the Clarke's earlier works and ideas. Another partial aim of the thesis will be to analyse the similarities and continuity in relation with the antecedent story *The Sentinel* that is considered the core inspiration for 2001 as well as Friedrich Nietzsche's philosophy in *Thus Spoke Zarathustra*. The main section of the thesis focuses on interpretations of hidden messages the story inconspicuously introduces. The subchapters of this major section are further subdivided into interpretations of the following themes: the concept of evolution, extraterrestrial life and the perils of technology in relation with artificial intelligence and the threat of nuclear weapons. The conclusion of the work offers a review of the major findings and summarises the reflections of fulfilling the objectives.

I have selected this science fiction literary topic because of the covert message that is being offered in the book as well as in the movie. The indistinct plot metaphorically surrounded by mysterious extraterrestrial presence attracted my attention and set many questions that I wanted to focus on in this work. Last but not least I would like to point out my great interest in space exploration and the Cold War history, the issues that are closely connected with the essential message of the space odyssey stories.

### 2. Arthur C. Clarke and his perception in literature

Arthur C. Clarke became a worldwide well-known writer after his essential collaboration on the screen play of 2001, since then he wrote twelve more novels, over 600 articles and short stories and was awarded all possible prestigious prizes for science fiction writing. Alongside with contemporary key authors such as Robert Heinlein and Isaac Asimov, Clarke was categorised among the most influential and successful writers of the science-fiction genre. As apart from many other authors, he actively participated on space research and was responsible for many scientific inventions.

The lifetime work of Arthur Charles Clarke was significantly affected by his field of study and scientific environment. He was born in a small town called Minehead in the county of Somerset. He attended Huish's Grammar School in Taunton and as a teenager he started contributing his own fantasy stories for a school magazine. During the Second World War Clarke joined RAF, having served as a technical officer on the first Ground Control Approach radar. This unique technical experience influenced his first short stories after the war, where he used the concept of satellite communication with extraterrestial aliens. In 1948 he graduated from maths and physics while he was continuously publishing short stories for different periodicals. Despite the first sceptical reactions of several reviewers, many of them appreciated his enthusiasm and provided an optimistic view of the potentials of science in the space age (Encyclopedia.com 2017).

The first critical recognition emerged in 1952 after publishing a collection of short stories including *The Sentinel* (see p. 7-9). This particular story, as the story basis for the 2001, is considered to be a philosophical treatise about physical and religious world of humankind:

"Many readers saw "The Sentinel" as an allegory about man's search for God. Certainly it expressed Clarke's belief in the power of science in helping mankind understand the universe" (Hollow 1983, p. 37).

Since then, the major theme of extraterrestrial life accompanied the most of his further work (e.g. *Childhood's End*) as well as other utopian themes, such as human's struggle under civilisation and their effort to escape.

Later on, as a man of many varied interests, Clarke devoted his time to another adventurous interest and immigrated to Sri Lanka for scuba diving discovering missions. In the 1960's he started to write non-fiction scientific articles about radars and zero gravitation conditions (wikipedia.org). He was also awarded the UNESCO Kalinga Prize in 1963 for his writings on the nature of science. The audience of contemporary television also knew him for being a commentator of the broadcast of the Apollo 11, 12 and 15 missions in CBS.

Until 1968, Clarke had been known predominantly in the British Isles, which has been changed after the breakthrough moment of finishing the 2001 screenplay. There had been numerous space-exploration science-fiction movies so far, but none of them employed the physical features of the space travel so strictly. The accuracy of the environmental features of the universe would have meant nothing in itself, but the 2001 story introduced a mystical and philosophical dimension as well. "2001 followed Clarke's lead in using science fiction as a bridge to the consideration of mystical and religious themes" (Rabkin 1979). After the commercially and critically acclaimed 2001, Clarke continued writing fiction novels with inconsistent acceptance by readers. In 1979 he returned successfully with a critically acclaimed novel, Fountains of Paradise. In 1982 Clarke decided to follow up the previous famous work and published the second odyssey story, 2010: Odyssey Two, with much more geopolitically related background of the story on the basis of Cold war environment. Later on, 2061: Odyssey Three (1987) and 3001: The final Odyssey (1997) were published. Up to his death in 2008 he had been still participating in either scientific and fiction articles and short stories.

Despite some criticism that he had been overusing technicalities and scientific terms in the "belles-lettres" texts, McAleer (2013, p. 6) answers the crucial question: "Why did Arthur C. Clarke become one of the 20<sup>th</sup> century's most influential writers and visionaries? The answer lies in his passionate enthusiasm and energy for exploring the universe around him – its celestial and terrestrial wonders and humankind's unending stream of ideas, desires, and imaginings."

### 3. The historical context of science fiction and 2001: A Space Odyssey

The previous chapters have already mentioned metaphorical and symbolic dimension of the novel but there has not been mentioned much about external influences that inspired Clarke's vision of the future (2001). The period of the creation of the novel might be considered the peak of conquering the universe due to the planned landing on the Moon. Since Clarke had been in contact with several scientists responsible for the Moon mission planning (Clarke 1989 – Foreword), there were many ideas and technical details connected with the real space mission of NASA. However, the space programme, as well as the novel indirectly relate to another significant aspect of its background, the Cold War and nuclear weapons. The following subchapters deal with the links to these historical events and issues.

### 3.1 The context of space exploration

Clarke's progressive visions of the future classified him a futurist who seemed to live ahead of his time. Many of his ideas and theories became reality. His ideas were embraced by both the scientific and science fiction communities. The undisputed advantage of the book's major theme was the escalation of the Space Race and the announced plan of landing the Moon in 1969. Despite the enthusiastic introduction of the possibility of new advanced technologies, Clarke's approach seems to be rather reserved with a certain load of criticism of unchecked technological innovation and possible extraterrestrial discoveries. This skepticism can be demonstrated in the following excerpt at the moment when the science team approaches the mysterious monolith:

"And they where they touched it, its ebony surface seemed to swallow them. Pandora's Box, thought Floyd, with a sudden sense of foreboding – waiting to be opened by inquisitive Man. And what will he find inside?" (Clarke 1968, p. 78).

At the turn of the 50's and the 60's, science-fiction literature experienced The New Wave movement with a lot of experimentations both with content and form. Authors like Frank Herbert, Isaac Asimov or Alfred Bester were experimenting with language on modernist note and caused the changes in sci-fi the genre. The plots in the stories started to be more sophisticated and attempted to reveal new philosophical ideas related to the human existence. In the context of the real space exploration, literature started to be much more demanding from the point of factuality. 2001: Space Odyssey

offered something that could be compared with the real live-stream space exploration with a subtle sci-fi hint of mysterious phenomena in the form of an extreterrestrial object.

Of course, it is obvious that Clarke's vision of the close future was considerably exaggerated and overambitious. Not even the current technology of the year of 2017 could have competed the vision in the 2001. Despite this fact, it is important to mention that the technological progress has not slowed down because of the technical impossibility of Clarke's suggestions, but for the lack of motivation and extremely high costs. In the context of numerous discussions whether to support space exploration, Clarke clearly advocated its benefits for humankind and considered it to be the next stage of evolution (Jucha 2016).

### 3.2 The context of the Cold War

From a broader perspective, the whole space exploration race between the two geopolitical superpowers was just another strategic objective of the superpowers within the Cold War. A. C. Clarke, as well as the director Stanley Kubrick had been dealing with the international Cold war competition between the communist U.S.S.R. and the United States even before the 2001 was released. As apart from the movie, Clarke's novel gives the story concrete geopolitical background and introduces current problematic events in the "future" year of 2001. As it can be seen in the following text sample, Clarke estimated and predicted even specific geographical background:

"The population of the world was now six billion – a third of them in the Chinese Empire. Laws had even been passed in some authoritarian societies limiting families to two children, but their enforcement had proved impracticable. As a result, food was short in every country,(..)" (Clarke 1968, p. 37).

One of the main characteristics of the Cold war was the fear and respect towards nuclear weapons that have been terrified both sides and paradoxically guaranteed a peaceful solution of a conflict many times. Both Clarke and Kubrick often discussed the possible destructive usage of the nuclear power that could have been a doomsday for our civilisation. The conception of the Cold war and nuclear powers seems to be missing in the movie, but it is distinctly stressed in all Space Odyssey book stories.

The final part of the first chapter, *Primeval night*, is dedicated to the metaphorical conclusion of the theory of Darwin's evolution and humans ability to master nature. Even in this part, the hint of scepticism was not omitted:

"The spear, the bow, the gun, and finally the guided missile had given him weapons of infinite range and all but infinite power. Without those weapons, often though he had used them against himself, Man would never have conquered his world. Into them he had put his heart and soul, and for ages they had served him well. But now, as long as they existed, he was living on borrowed time" (Clarke 1968, p. 31).

The theme of perils of technology, later discussed on page 14-17, follows the whole Clarke's biography, and 2001 is the best example. Even though the anxiety of the doomsday is clear, the technology does not substitute anything harmful in the novel in itself. On the contrary, the idea of sharing the newest technology to explore the extraterrestrial life forms suggests the future alliance between the superpowers almost in a utopian way. As apart from 2001, in the second book 2010 that was finished 16 years after the first part, the themes of the Cold war are more straightforward with direct confrontation of Russians and Americans during the mission.

### 4. The Sentinel analysis

Even though the writing process of 2001 was mutually influenced by the cooperation between Clarke and the movie director Stanley Kubrick, the original theme had been established almost 20 years before the final story of the first space odyssey in 1951. The Sentinel shares the same central theme of a discovery of extraterrestrial unknown object on the Moon's surface. The story begins with the narrators descriptions of discrepant life conditions on a science lunar base in the future of 1996. While a casual geological surface research is being carried out, the main character questions the sense of the mission putting it in the context of the loneliness of humanity. The detailed scientific introduction of the research and the routine life on the Moon is suddenly interrupted by a "metallic glitter" that has been caught by Willson. The following day Willson decides to get closer to the mysterious object and after approaching the target destination the expedition discovers a shining monolith twice the height of a man. The glittering geometrically accurate pyramid shaped object later undergoes scientific investigation that discovers a signal being transmitted into a distant universe location. The scientific team is convinced the monolith was placed millions years ago by another intelligent civilization that had been left it in the hope that life would form on Earth. The final sentences of the narrator express an uncertain expectation and apprehension:

"I can never look now at the Milky Way without wondering from which of those banked clouds of stars the emissaries are coming. If you will pardon so commonplace a smile, we have set off the fire-alarm and have nothing to do but to wait. I do not think we will have to wait for long." (Clarke 1951, p. 6)

As it can be seen in the 2001 novel, the narrator introduces variety of technical details and astrophysical interactions in the presumed environment of the Moon conditions. As a university graduate with the degree of mathematics and physics, A. C. Clarke applied his knowledge of the universe and tried to describe every detail of the obstacles of different gravitation. An interesting major turning-point that influenced the 2001 novel since The Sentinel had been written was the event of the Moon landing in 1969 and its research and preparations that helped Clarke and Kubrick with the simulation of the reality in the movie and the novel as well. To set an example of the technical background of the story, many of excerpts can be introduced, for instance:

"It was an uneventful routine. There is nothing hazardous or even particularly exciting about lunar exploration. We could live comfortably for a month in our pressurized tractors, and if we ran into trouble we could always radio for help and sit tight until one of the spaceships came to our rescue." (Clarke 1951, p. 1).

In the story climax, when the geologist Willson and his colleague Garnett are climbing a lunar mountain to discover the mysterious monolith, the narrator explicitly discusses the obstacles of lower gravitation: "The real danger in lunar mountaineering lies in overconfidence; a six-hundred-foot drop on the Moon can kill you just as thoroughly as a hundred-foot fall on Earth" (Clarke 1951, p. 3). Surprisingly, Clarke's estimates were almost accurate. The comparisons with the conditions of Earth are frequently used in both The Sentinel and 2001 in various contexts and impressions: "The sunlight was beating against those ramparts with a glare that hurt the eyes, yet only a little way above them the stars were shining steadily in a sky blacker than a winter midnight on Earth" (Clarke 1951, p. 1).

It has been previously mentioned, that the main theme of an extraterrestial discovery is the main issue of both stories. Of course 2001 has much broader context and another dimensions but the chapter *T.M.A.* is evidently inspired by *The Sentinel* story. The thought concerning the humanity and possible impacts of an encounter with aliens is almost identical from the language point of view. One of the content differences worth to mention is shape difference of the monolith found on the surface of the Moon. While the shape in the short story was a glittering pyramid, the novel depicts it a massive rectangular non-reflective mass with regular flat surface. Another major difference is the first person narrator as apart from the third-person omniscient in 2001.

As well as 2001, *The Sentinel's* tone is very scientific but less detached because of the first person narrating style. In both cases, there are signs of the same motifs such as the possible advanced intelligence in the universe and its uncertainty concerning the encounter. Another interesting motif is introduced in the following excerpt taken from the short story:

"Its builders (note: of the monolith) were not concerned with races still struggling up from savagery. They would be interested in our civilization only if we proved our fitness to survive – by crossing space and so escaping from Earth, our cradle. That is the challenge that all intelligent races must meet,

sooner or later. It is double challenge, for it depends in turn upon the conquest of atomic energy and the last choice between life and death." (Clarke 1951, p. 6)

Even though there is no geopolitical background in *The Sentinel*, the Cold War tension and the fear of nuclear weapons is perspicuous in certain parts of the text as it has been taken above. On the other hand, despite the incredulity over the future of our civilisation in both Clarke's works, he exaggeratedly and hopefully estimated the future development of the space technology for *The Sentinel* story takes place in 1996 and the Saturn space mission in *Odyssey* in the 2001.

After leaving all these technical differences behind, *The Sentinel* served as a perfect springboard for the future Clarke-Kubrick cooperation with a lot of improvements and contemporary context.

### 5. 2001 and the interpretation of its message

The following chapter provides a short summary of the story and introduces the philosophy of the book, as well as the author's interpretation of its themes.

### 5.1 The plot summary and its philosophy

Despite the metaphorical narration of the story and technically textured background, the plot can be easily summarized in an understandable way. After the first part of the book, which is concerned with the destiny of primeval ape tribes, the story switches into the year 2010. A strange mysterious and obviously extraterrestrial object is discovered on the Moon's surface by American scientists. A small crew of geologists led by Mr. Floyd is sent to explore the monolith. They discover an anomaly in the magnetic field and a strange signal that is being emitted into a space near to a moon of Saturn. After several years of preparations, a small crew of astronauts and scientists in hibernation is sent to Saturn to discover the target location. The voyage is endangered by the breakdown of the ship computer Hal 9000, who kills all the crew members except for the captain David Bowman, who manages to get to the target location in one of the moons of Saturn. There he experiences a travel through a star gate and at the end of his travel he is reborn as a new being, a Star-child.

Even though the story is fairly straightforward and clear, the plot itself has got only a minor impact on the whole message of the novel. Besides the metaphorical contextual connection with space travel, the Cold war and nuclear menace, Clarke and Kubrick admit that the work is inspired by Friedrich Nietzsche's *Thus Spoke Zarathustra* (SparkNotes Editors 2017).

Nietzsche's theory could be interpreted as a constant human's struggle to reach an ideal and perfect being that is also called The Superman. The evolution of the mankind is further categorised into three stages of its development: the ape, the man and the final stage, the Superman. The current form of a man is considered to be only a bridge to the Superman, which is not so important except for its motivation to progress towards the further stage. The upcoming Superman is what really matters and the previous stages are only preceding steps in the course of evolution. At the end of this cycle, man should be forgotten in the shadow of the Superman, who will be born as a child because the child is innocence and forgetting the old order (Nietzsche 2008). The parallel between *Thus Spoke Zarathustra* and the novel is obvious. The struggle of apes in *Primeval Night* 

represents the first stage of human's evolution. From the chapter *T.M.A.* to *The Moons of Saturn* the reader can follow the urgent effort of mankind to reach its goal. In the final part, the main character is transformed into a Star-child, who represents a super-being in the parallel with Nietzsche's Superman.

Considering the previous paragraphs, Clarke's and Kubrick's script is not just a science-fiction story based on their lush fantasy, but it is also interconnected with the philosophical dimension and abstract themes that can vary throughout different interpretations. And this might be the biggest value of the novel. It asks sophisticated questions instead of giving explicit explanations. The freedom of possible interpretations of the themes and their hidden message can be subjectively analysed and evaluated in the following subchapters.

### 5.2 The concept of evolution

The development of man throughout the evolution is undoubtedly one of the most obvious themes of the book. I have selected several excerpts of the novel for the demonstration of the changing process. In this respect I would distinguish particular stages according to Nietzsche's classification and match them with the chapters.

*Primeval Night* introduces the struggle of the Moon-Watchers (man-apes), who are on the verge of extinction at the beginning of the story. The man-ape's lives are constantly threatened by predators and their food is grazed by another species. The subchapter itself describes their sealed fate (*The Road to Extinction*):

"They were not flourishing: indeed, they were ready far down the road to racial extinction. About fifty of them occupied a group of caves overlooking a small, parched valley, which was divided by a sluggish steam fed from snows in the mountains two hundred miles to the north. In bad times the stream vanished completely, and the tribe live in the shadow of thirst" (Clarke 1968, p. 3).

As we can see, the default position of the man-ape tribes was miserable and it would have probably led to their proposed extinction until the strange monolithic block appeared. Due to this breakthrough moment of the novel, I would like to mention that despite the relation to the theory of Evolution, Clarke and Kubrick actually contradict the idea of Darwin's conception. The story does not follow the idea of species adaptation to external natural conditions, but it proposes a sudden change of man-apes behaviour

due to the mysterious power of an unknown origin. From this point of view, I would be rather inclined to believe that the monolith might symbolise "God's hand". After seeing, touching and licking the object of a strange power, the Moon-Watcher started its transformation into a human being. The process of the change was almost beyond recognition, the Moon-Watchers started very slowly to master the most primitive objects such as bones, stones or wooden sticks and suddenly they were able to get the limitless food and the savannahs was theirs to take: "The man-apes had been given their first chance. There would be no second one; the future was, very literally, in their own hands" (Clarke 1968, p. 21).

After the first chapter *Primeval Night*, the story switches into a close future in the year of 2000 and 2001. The mankind is going to take the final step to finish their transformation from a man to the Superman. Unlike the previous transformation, the step to become the Superman is based only on a philosophical reasoning and thus it is very difficult to explain. Despite its abstractness I would highlight both Clarke's and Kubrick's conception of this change. After David Bowman is thrown into a star gate, he experiences very deep and emotional journey through his mind and the whole universe:

"He seemed to be floating in free space, while around him stretched, in all directions, an infinite geometrical grid of dark lines or threads, along which moved tiny nodes of light – some slowly, some at dazzling speed. Once he had peered through a microscope at a cross-section of a human brain, and in its network of nerve-fibres had glimpsed the same labyrinthine complexity" (Clarke 1968, p. 245).

At the end of his incredible journey, he leaves his physical body and is reborn into a new being called Star-child: "The timeless instant passed; the pendulum reversed its swing. In an empty room, floating amid the fires of a double star twenty thousand light-years from Earth, a baby opened its eyes and began to cry" (Clarke 1968, p. 247). The new reborn Star-Child perfectly coincides with the vision of Friedrich Nietzsche and his innocent view of the beginning of the new era, the era of the Superman.

It is more than clear that the monolithic object in Africa, on the Moon and on a moon of Saturn symbolises a breakthrough change in human's development. Considering that Clarke was supposedly fascinated by God (Mintown-Czyz 2008), we may be inclined to believe, that he really used the religious theme. What is also important to point out is the fact that the monolith appears three times in the novel, which is not in accordance

with the two acts of transformation and three stages of human's development. The appearance of the second monolith on the Moon is quite difficult for interpretation, because it does not cause any exceptional change for the present team of scientists. From my point of view, it can be explained only as an intermediary that just pointed the way to Saturn, or it could actually cause a change in human's mind being able to create artificial intelligence through the construction of Hal 9000.

### 5.3 The conception of extraterrestrial life

Thanks to the escalating efforts to explore the universe in the 1960's, a huge public discussion concerning a possibility of an extraterrestrial alien civilisation started to arise. Clarke had previously dealt with the question of extraterrestrials in his works, but for the co-writer Kubrick it was the first experience. After seeing the movie I did not relate anything from the content to an alien civilisation because Kubrick did not point this idea out. On the contrary, the book explicitly mentions the monolith as an extraterrestrial element originating outside of our Solar system. As an interpretative example I would mention a sample text from a conversation between the chief geology scientist Mr. Heywood Floyd and his colleagues discussing the origin of the monolith on the Moon:

"My colleagues and I, Dr Floyd, will stake our reputations on this. T.M. A.-1 has nothing to do with the Chinese. Indeed, it has nothing to do with the human race – for when it was buried, there were no humans. 'You see, it is approximately three million years old. What you are now looking at is the first evidence of intelligent life beyond the Earth'" (Clarke 1968, p. 69 – 70).

Except the miraculous monolith and its anomaly in magnetic field, there is not any other single sign of an extraterrestrial civilisation. The most of the information related to aliens is revealed in the conversation mentioned above, as well as in the final part during Bowman's travel through the star gate. The civilisation that constructed the monolith developed intergalactic travel millions of years before the present moment, as Clarke suggested in 2001 as well as in the Second Odyssey. The omniscient narrator of the novel does not communicate any information about the extraterrestials life or characteristics but he refers to them as "Firstborns", who have probably installed the monolith when they realised that a new civilisation is probably going to arise one day in the planet Earth. In the year of 2001, humans finally proved their capability to leave their mother planet and

deserved to progress in their development via the confrontation of the alien's construction that had been waiting for humans millions of years (Clarke 1951, p. 6).

When I was reading the book, I really appreciated the lack of information about the aliens. The abstract conception of extraterrestrial phenomenon forces the reader to take full advantage of his imagination. I have not associated the picture of the monolith with another physically existing civilisation. I would rather use a different term but civilisation. Even though the monolith has got a physically distinct structure with an unknown origin, the extraterrestrial creatures might be understood just as a force of life's change that has created the whole universe. From my perspective, the term "civilisation" might be subordinated to Firstborns. However, the conception overlaps with the religious approaches to the understanding of the universe. The second and probably more straightforward interpretation for a typical reader of science fiction might be based on a conviction that the monolith was created by another civilisation which has already developed into a Super-being or any other more advanced stage of development. Although both authors tend to prefer the second way of interpretation, there is luckily enough space for any other version.

### 5.4 The perils of technology

The motif of highly advanced technology and its possible misuse or failure has got strong allegorical value in the novel. As apart from the movie, the book explicitly discusses the hypothetical scenario of nuclear apocalypse and the unstable political situation on Earth at the time of space exploring missions. Besides the background full of social anxiety related to mighty nuclear weapons, there is another peril threatening the society, the unpredictable impact of the creation of artificial intelligence.

### 5. 4. 1 Artificial intelligence versus human beings

The ship computer Hal 9000 represents direct and recognisable peril of technology because of its indispensability for the crew:

"Poole and Bowman had often humorously referred to themselves as caretakers or janitors aboard a ship that could really run on itself. They would have been astonished, and more than a little indignant, to discover how much truth that jest contained" (Clarke 1968, p. 99).

The abbreviation of Hal is explained as *Heuristically programmed ALgorithmic computer* that is actually a full sixth member of the crew considered to be the nervous system of the ship. As apart from its responsibility over the controls of the ship, it is important to point out its authority for controlling living conditions for the four crew members in hibernation mode. However, Hal is not just a computer listening humans orders. It is also a companion that is able to have a reasonable conversation with the simulation of human's emotions.

The novel also describes the curiosity of the living crew members concerning Hal's hypothetical feeling and attitudes:

"Whether Hal could actually think was a question which had been settled by the British mathematician Alan Turning back in the 1940s. Turning had pointed out that, if one could carry out a prolonged conversation with a machine – whatever by typewriter or microphone was immaterial – without being able to distinguish between its replies and those that a man might give, then the machine was thinking, by any sensible definition of the word. Hal could pass the Turning test with ease" (Clarke 1968, p. 99).

As the most logical thinking expert of the mission members, Hal was fully aware of social manners and was capable of speech, facial recognition, empathy, natural language proceeding, lip reading, art appreciation, automated reasoning an playing chess. Bowman and his deputy Poole accepted Hal as their flawless colleague who was capable of answering any technically related question concerning their mission. Although all the necessary information about the manufacturing process of Hal is revealed and both active crew members are aware of its characteristics, Bowman secretly questions its reliability even before its breakdown. For better understanding the antagonist character Hal it is significant to point out the real purpose of the mission, which is unknown for everyone except for the operating computer and the few scientists in hibernation.

The breakthrough moment of the chapter happens when Hal announces a fault in the "AE-35 Unit", which is an extremely important antenna module of the ship. After investigating what really happened with the module, Bowman and Poole find out everything in order with no fault. This is highly disturbing as Hal has never made a mistake. This experience makes the crew suspicious and finally they decide to shut him down. Hal realises their attention and kills Poole while he is mounting the reportedly

malfunctioning part of the antenna. He also kills the hibernating scientists by disconnecting their life support. The only one survivor is the captain David Bowman, who finally disconnects Hal. After shutting down the malfunctioning computer, he is being informed with a prerecorded message about the real purpose of the mission, to explore the target location of an extreterristal signal produced by the T.M.A. monolith (Clarke 1968).

In relation with the possible peril of the artificial intelligence it is crucial to discuss the Hal's motivation of its fatal action against the space crew. There are two possible interpretations how to explain the nonstandard behaviour of Hal 9000. The first suggests the strange behaviour could be just a consequence of insanity or a malfunction that can happen to any other device and probably even more to such a complex and complicated computer as Hal. The second option proposes Hal's "failure" as a premeditated scenario for eliminating the surplus crew members. The book does not explain the real cause, but it is clear, that Hal's objective of the mission is superior to the lives of the crew (Waldrop 2013). In order to prevent its deactivation, Hal decides to eliminate all his human opponents. I am convinced that for the message of the book this distinction really matters.

The first option of an accidental failure indicates a danger of creating something that can get out of our control. Clarke, as a highly educated expert on physics, might have seen all the unpredictable technological advances of the Cold War times in the 50's and the 60's. I suppose it might be compared even with an explicit example of the particle accelerator project, which was constructed for non-military purposes. The possible results of particle accelerator experiments had been predicted as save but on the other hand, many experts had considered it extremely dangerous as well. In the case of Hal 9000, the crew was fully dependent on its functions so I think Clarke and Kubrick wanted to demonstrate the possible peril of the dependence on technology, because it will be always created by a human and no human is considered flawless.

The second possibility of Hal's malfunction proposes a well-though-out scenario of the computer to get rid of the crew members. From the point of my interpretation, I consider it even more likely alternative. Hal intentionally announced the antenna unit failure to find out the reaction of the crew members on his misconduct. His disconnection would have been in contrary to its main programmed objective so the variant of killing the crew seemed to be a logical solution. From this perspective it is not the technology that is threatening the civilisation, but, again the human beings themselves who have progressed in technological development but decayed in their moral values.

### 5. 4. 2 Nuclear weapons

The content related to the perils of nuclear weapons has been previously discussed in the chapter referring to the Cold War race. As apart from the film, the book imaginatively depicts the phantom menace in a remote environment:

"Any man who had ever worked in a hardened missile site would have felt at home in Clavius. Here on the Moon were the same arts and hardware of underground living, and of protection against a hostile environment; but here they had turned to the purpose of peace. After ten thousand years man had at last found something as exciting as war. Unfortunately, not all nations had yet realised that fact." (Clarke 1968, p. 60-61).

As we can see in the text sample, there is a strange contrast between our home planet, which is constantly threatened by the missile sites, and the hostile environment of the Moon that has become a place for real international cooperation, and the technology is used for the purpose of peace.

Even though the tone of the book is generally considered detached and scientific (SparkNotes Editors 2017), when considering the context, I would characterize it rather a sorrowful view of the overwhelming and bitter contemporary reality. In combination with the detached language style, the emotional experience was intensified even more due to its contrast. As a clear demonstration of the Clarke's remarkable conception of the perils of technology together with a sigh of hope, you can see a text excerpt from the last paragraph of the novel:

"A thousand miles below, he became aware that a slumbering cargo of death had awoken, and was stirring sluggishly in its orbit. The feeble energies it contained were no possible menace to him; but he preferred a cleaner sky. He put forth his will, and the circling megatons flowered in a silent detonation that brought a brief, false dawn to half the sleeping globe" (Clarke 1968, p. 252).

### 6. Comparison of the book and the Kubrick's film

"Writing a novel is like swimming through the sea; writing a film script is like thrashing through treacle." This quotation by John Fowles mentioned in the foreword concerning the making of the novel (in Clarke 1989, p. xiii – in preface) can introduce the unusual process of the story creation. As it was previously mentioned, the novel was written simultaneously with feedback reflections in both directions. In 1964, Stanley Kubrick succeeded with his Cold War black comedy *Dr. Strangelove*. For his next film, he wanted to make something different so he addressed Arthur Clarke, who had been already famous in the genre of science fiction. Clarke's short story *The Sentinel* attracted Kubrick's attention and both authors started together writing the script for the movie.

In the prologue of the novel, Clarke describes the remarkable collaboration with the director Stanley Kubrick: "It's true that 'novelisations' (ugh) are all too often produced afterwards; In this case, Stanley had excellent reasons for reversing the process. Because a screenplay has to specify everything in excruciating detail, it is almost as tedious to read as to write." (Clarke 1989, p. xiii in preface) During the last months after a long time of cooperation, they worked individually. While Kubrick was creating the movie, Clarke was trying to complete the final form of the novel. Even due to this final separation, the book and the movie differ from each other in many aspects that will be chronologically analysed in the following paragraphs.

The first chapter, *Primeval Night*, takes place eight million years ago and the main protagonists are apes called Moon-Watchars, who have to force a constant struggle of draught and hunger. Of course, the inability of apes to speak prevented Kubrick's film version from revealing a lot of verbal information expressed in the novel. Clarke systematically narrates the story of ape's difficult life and tries to emphasize with our possible evolutionary ancestors. When the mysterious object appears, the book describes it in a different view. In the book, the object is transparent and light as apart from the film, where it can be seen as a black opaque rectangular slab. After seeing it, the apes in the book are hypnotised by an odd sound and start to behave strangely. The first chapter in the book is also furthermore comprehensive for many scenes are completely missing in the film, for example, an important moment of demonstration of domination over nature through killing a leopard in an ape's cave. Another significant difference is Clarke's detailed depiction of human's evolution from spears to guided missiles in contrast with

Kubrick's restraint as he skipped this part and moved to another chapter without any explanations.

T.M.A., the second chapter, follows the storyline of the short story *The Sentinel*. The mysterious monolith is discovered on the Moon surface. What differs the most in this comparison is the lack of contextual information in Kubrick's film. In the book, Clarke commented on population, politics, environmental issues, famine and nuclear warheads, whereas Kubrick took the time to introduce the most advanced film effects and filmmaking technologies only with the limited amount of the most crucial dialogues. As apart from the film, the book, for example, discusses the life of space-born children, who have developed different physical characteristics and customs.

Between Planets, Abyss and The Moons of Saturn share exactly the same storyline as the film does, but there are few technical distinctions. The target destination of the spaceship that is going to discover the final location of a strange signal emitted from the T.M.A. monolith differs in the book and the movie. A moon of Saturn is substituted for an interplanetary space near Jupiter because the Saturn environment was impossible to create in convincing way (Clarke 1989). Even in these chapters, a lot of interesting context is omitted. Even though the movie demonstrates almost fifteen minutes of the remarkable life of the two astronauts David Bowman and Frank Poole, there are still many important details missing. After the computer Hal 9000 breaks down and starts to behave strangely, Frank and David react differently in the book and they publically discuss the possibility of disconnection. From the point of the book it is clear that Hal 9000 was not getting crazy by an accident as the movie suggested, but it is clear that he is programmed to finish the mission at any cost. David Bowman, the main protagonist of the final part, is much more emotional and authentic in the book and he reacts angrily when he realises that Poole has been killed by Hal. After the disconnection of Hal 9000, the movie completely skips an interesting part where the only survivor Bowman thinks about the humanity, space travelling, theory of relativity, black holes and other astrophysical and philosophical issues. The final part Through the Star Gate turns into a psychedelic finale in both works. The breakthrough visualisation in the film makes it even more convincing and the book employs the reader's imagination by abstract but coherent descriptions of remarkably odd details.

The very final part of the movie is called *Star-Child*. After discovering the moonlight on the moon of Saturn, Bowman is swallowed by a star gate and he finds himself in a white room in which he sees various life stages of himself. After that, he is transformed into a fetus, and

became a Star-Child, an immortal being that resides within space. Whereas the book tries to remind the reader of the menace of civilisation, the film ends with portraying the Star-Child with the outstanding soundtrack *Also Sprach Zarathustra* by Robert Strauss.

Although both authors worked closely together on the script, the usual differences between the book and the film are obvious. In general, the movie fails to explain a lot of things that could have been boring on the screen. On the other hand, Kubrick's usage of the newest visualisation techniques made it a revolutionary movie, and, due to his hints without further explanations, an extremely metaphorical work free to any sensible interpretation.

### 7. Conclusion

2001: A Space Odyssey is generally considered a classic work of modern science-fiction history, even though it has been often characterised as an incomprehensible story, mainly associated with Kubrick's artistic film production. The key objective of this final work was to analyse these seemingly baffling motifs, to suggest interpretations and link it with the social and political background of the society in the 1960's.

The first chapter after the introductory part dealt with the personality of the author Arthur C. Clarke and his style in the context of contemporary science fiction. The historical background and its influence upon the story was described in the third part of the work. It was mainly concerned with the Cold War and the space exploration race. The third part analysed Clarke's short story *The Sentinel* and its impact on the novel. The philosophy and overall message of the book was further discussed in chapter five together with several possible interpretations of the most notable motifs. Because of Clarke's unconventional cooperation with the director Stanley Kubrick who had published the film adaptation before the book was issued, the final part reviewed their collaboration and explained the main differences between the novel and the film.

Once the objectives have been completed, the following major findings can be drawn. Clarke's specific detached language style and strict emphasis on scientific accuracy of the physical environment has made the novel one of the most convincing science fiction stories at the time. Despite this scientific approach, there are many allusions to contemporary geopolitical and social problems. The main themes of the story are the Cold War, nuclear weapons, artificial intelligence or human's unpredictable technological progress. Most of these themes are not mentioned explicitly so it may give an impression of an allegory. Even though the plot of the novel can be considered straightforward, it is significant to point out the inspiration and certain analogy between the story and Friedrich Nietzsche's philosophy introduced in the famous work *Thus Spoke* Zarathustra. Clarke's and Kubrick's ideas might be their own conception of this philosophy. Apart from this analogy, the original screenplay was written on the basis of the short story The Sentinel, which introduced the concept of extraterrestrial object found on the Moon surface. The concept of terrestrials can be perceived in two possible ways, while even religious interpretations can be applied. Last but not least, the story was created reciprocally in collaboration with Stanley Kubrick, so, as well as the book, the film copies credibly the same plot and major themes but with much less details and without social-political context. From the point of my interpretation and reflection, I consider the novel as the greatest example of natural combining the most influential themes of science fiction. This seemingly incomprehensible story has actually a lot of dimensions but the message may be clear: Only peaceful intentions, together with the international cooperation of all human race and with endless effort for discovering, can change us into a super-being who will survive for forever.

This final work might serve as a guide for the understanding of the novel with respect to its confusing motifs as well as the overall plotline. It also introduces several suggestions for possible interpretations and finally reveals the connections between the story and its real background. Eventually, it can certainly be used as a starting point for another, more complex literary research.

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