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Section One

INERT MATTER

The Universal Grammar of Evolution

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The evolution (sensu lato) of the cosmos can be divided in three phases: cosmological evolution (sensu stricto), biological evolution and cultural evolution. Analogies between biological and cultural evolution date from the nineteenth century although it is only in the past two decades that so-called cultural evolution research has exploded. By contrast, comparisons between cosmological evolution and either biological or cultural evolution are uncommon. Here, we compare these three kinds of evolution and try to delineate their common grammar. Do their structure and underlying dynamics have characteristics in common? We believe that this is indeed the case and also that this Universal Grammar of Evolution can and should be used as a heuristic template in the study of these three kinds of evolution. Furthermore, this provisional template also might help scholars in their attempts to sketch the future course of a possible fourth kind of evolution, that of artificial intelligence and intelligent machines.

Keywords: Cosmological evolution, biological evolution, cultural evolution, universal grammar, structure, dynamics

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Introduction

In the beginning, there was not the word, but pure energy. The cosmos as we know it today has, so to say, lifted itself out of this homogeneous and relatively simple energy soup, much like Baron Munchausen rescued himself and his horse out of a swamp by lifting himself up by his pigtail. Put differently: the solar system, Earth, life, man, the Eiffel tower or even the first World War, *The Origin of Species*, the Mona Lisa and the worldwide web were already potentially present in the primordial state of the universe. How did the dizzying complexity and heterogeneity of our world and the modern cosmos come into being in the course of the past 13.8 billion years? The short answer to that question is: through a long process that we know as cosmological (i.e., physical and chemical), biological and cultural evolution. Or, as Kurzweil (2005) puts it: through the epochs of physics and chemistry, biology and DNA, and brains and technology. Also, each epoch built upon the one before it: evidently, without cosmological evolution (*sensu stricto*), there would have been no biological evolution and without biological evolution no cultural evolution.¹

In each one of these three distinct epochs, a relatively simple and homogeneous state was developed into a much more complex and heterogeneous state. In other words, order evolved at different scales, from particles to societies. It is this development that we here call ‘evolution’: not only energy and matter went through so-called phase changes (e.g., the emergence of the first particles out of matter) but also the evolution of the Universe. The term ‘evolution’ is derived from the Latin ‘evolutionem’ (the ‘unrolling’ of a book) (Bowler, 1975). One could therefore also say that the book of the Universe consists of three parts. We are here interested in the features that these three parts have in common, not in the features that are specific to one or two of these three kinds of evolution.

Cosmological, biological and cultural evolution indeed each have their own, distinct characteristics. For example, biological evolution is largely (but certainly not exclusively) adaptive but adaptation does at first sight not seem to be characteristic of cosmological evolution. However, we believe that these three kinds of evolution also have some features in common. It is these common, fundamental features that we here call the Universal Grammar of Evolution (henceforth UGE) (section 3). It encompasses a structure and a dynamic. First, however, we will briefly compare this UGE with other, similar universal grammars (section 1) and distinguish it from the idea of Universal Darwinism (henceforth UD) (section 2).

1. Universal grammars

Of course, we are not the first scholars to delineate a ‘universal grammar’ of something or to at least make an attempt at delineating such a grammar. For example, Thomas S. Kuhn’s *The Structure of Scientific Revolutions* (1962) is inspired by the idea that the manifest heterogeneity and pluriformity of scientific revolutions hides a common structure. Therefore, his book might as well have been entitled *The Universal Grammar of Scientific Revolutions*. Scientific revolutions are initiated by a crisis, which is elicited by a persistent and serious deviation in the way that nature behaves, compared to the way it should behave, according

¹ Another intriguing question is to what extent the three kinds of evolution and/or the three realms (independently from their evolution) influence(d) each other. If we consider the developmental history of Earth as part of cosmological evolution, it definitely had a major impact on the evolution of life and on cultural evolution (see, e.g., Dietrich et al., 2006). Conversely, the evolution of life also had an impact on the evolution of Earth (see, e.g., Watson, 1999). In a similar vein, our biological and cultural evolution have always been very much correlated (bio-cultural evolution; see, e.g., Cochran & Harpending, 2009; Henrich, 2016).

to a particular, established theory or disciplinary matrix (i.e., a paradigm). If efforts to solve these anomalies with the help of the extant paradigm keep failing, a community of researchers can lose its confidence in that paradigm and become receptive to an alternative theoretical framework. If one of these alternative theories solves the anomalies and shows sufficient promise in guiding the research of the community, it will replace the extant paradigm and become the new paradigm (i.e., cause a scientific revolution).²

In a similar way, the science of networks studies what might be called the universal grammar or the structural architecture behind a wide array of complex phenomena like epidemics, brains, social networks or the internet. It thus observes and delineates “the architecture of complexity” (Barabási, 2003: 225): “amazingly simple and far-reaching natural laws govern the structure and evolution of all the complex networks that surround us” (p. 6). More specifically, so-called scale-free networks are made up of interconnected hubs that operate on the Power Law: a few hubs (websites, persons in social networks, super-spreaders in epidemics) are much more important than most other hubs.³ Likewise, Rosemont and Smith (2008) speak of a “universal grammar of religion” (i.e., fourteen points of similarity among the major religious traditions which allegedly indicate an innate human affinity for religion), and Perfetti (2003) of a “universal grammar of reading” (i.e., a number of properties that can be seen across all reading systems). It is therefore maybe surprising that no one has, as yet, tried to delineate an UGE, at least not to the best of our knowledge.⁴

2. The comparison with Universal Darwinism

New or not, the idea of a UGE certainly resembles the idea of a UD (e.g., Dawkins, 1983; Christian, 2015; Campbell & Price, 2019). In many scientific fields, ‘selection’ is proposed and discussed as an important mechanism, underlying the evolution of a wide array of systems or phenomena: quantum physics (Zurek, 2009), anthropology and archaeology (Cavalli-Sforza & Feldman, 1981; Boyd & Richerson, 1985; Mesoudi, 2004), cosmology (Smolin, 1998), immunology (Müller et al., 2018), etc.⁵ Apparently, natural forms of selection are in important ways antecedent to the order and complexity that is so paramount in our Universe. Smolin (2005: 34) even believes that it is the *only* way that complexity can increase against the tide of entropy. The entities that are selected are self-replicating organized information systems (i.e., systems, able to continuously decrease entropy locally).

² Of course, this model of scientific revolutions is not generally accepted. Nor do we have another generally accepted model of how scientific revolutions or major changes in the sphere of science take place (see also Leroi et al., 2020). As Nickles (2017) puts it: “Today there are entire academic industries devoted to various aspects of the topic of scientific revolutions, whether political or scientific, yet we have no adequate general theory or model of revolutions in either sphere.”

³ It should be added, though, that recent research (Broido & Clauset, 2019) has called the ubiquity of scale-free networks in question. Apparently, only about four percent of real networks can, strictly speaking, be called scale-free. Which leaves the question open as to what the common architecture or grammar of those networks is.

⁴ (Grinnin & Grinnin, 2019), for example, certainly come close with their study of “similarities between evolutionary laws, principles, and mechanisms at various levels and phases of Big History” (p. 99).

⁵ Descriptions of ‘selection’ vary (e.g., Smolin, 2005: 34; Blackmore, 1999: 10-11; Lewontin, 1970) but it requires (1) variation, (2) the elimination of certain entities and retention of others, and (3) a replication or reproduction of the selected or retained entities. Therefore, it can be characterised as an exponent of a more universal interplay between chance (variation) and necessity (elimination/retention and replication) (Monod, 1970).

Recently, Campbell and Price (2019) proposed a more complete and formal definition of UD. It is highly speculative but also opens new roads and sets exciting challenges, especially for cultural evolution. First, if Darwinian evolution is simply local entropy reduction, one can speculate that the evolution of cumulative culture is just a means, found by brains and cultures, to decrease entropy even further. That would imply that entropy and information theory could provide us with a comprehensive definition of cumulative culture (which is still debated), as well as with tools for measuring it. This would be particularly useful in anthropology and archaeology. Also, considering entropy as central to cultural evolution opens up an original interpretation of ethics: Vidal and Delahaye (2019) propose that simple moral rules could be based on the condemnation of entropy-increasing behaviour. Second, Campbell (2016) speculated that, under UD, evolving systems are all based on Bayesian inferential processes, which means that information is continuously updated and, through interactions with the environment, re-structured.⁶

However, even the most ambitious versions of the theory of UD are not quite the same as the UGE that we have in mind since ‘evolution’ encompasses much more than selection. For example, as we shall shortly see, constructive interactions and destructive events or processes form important components of the UGE. In fact, selection is not even a certain or necessary part of our tentative interpretation of that grammar. It is, after all, merely an explanans of biological adaptation, a phenomenon which is, as aforementioned, probably not inherent to the evolution of the cosmos.

3. The Universal Grammar of Evolution

Our delineation of the structural and dynamic properties (‘grammar’) that cosmological, biological, and cultural evolution have in common is very preliminary and provisional: it is merely a first attempt and an invitation for further research. Also, it should be pointed out that there is a speculative side to some of the parallels that we discern.

These parallels are the following. Firstly, the evolution of the cosmos, of life and of human culture(s) is, each in its own way, a manifestation or expression of information. Furthermore, each one of these three kinds of evolution starts out, or emerges from a state of primordial plurality: for sustained evolution to occur, circumstances have to be just right. Put differently: many entities (e.g., primitive lifeforms on other planets) remain stuck in a state of primordial simplicity and homogeneity (i.e., steady state non-evolution). Evolution starts in earnest after the occurrence of a seminal event (the first threshold). It is followed by a series of (further) structural thresholds. There also is a micro- and macro-dimension to evolution, as well as a horizontal and a vertical dimension. Lastly, different forms of cooperation or constructive inter-action (‘self-organisation’) play crucial roles in the dynamics behind evolution, next to (and sometimes entangled with) antagonistic interactions and forms of destruction. Furthermore, these dynamics are also characterised by an interplay between chance and necessity. The process that we call selection is but an example of this interplay. In what follows, these six structural and three or four dynamical components of the universal grammar of evolution will be briefly illustrated.

⁶ Some scholars have pushed the implications and consequences of UD to the limit. Price (2019) and Vaas (2019), for example, proposed that the ultimate manifestation of our evolving universe would be the emergence of an intelligence, able to tame the cosmos by enhancing cosmological selection (*sensu* Smolin, 1998).

3.1. The universal structure of evolution

3.1.1. An expression of information.

Cultures are expressions of cultural information and organisms of biological and particularly of genetic information. In the 1990s, research on black holes inspired the idea that, likewise, universes might be manifestations of what could be called cosmological information. According to the counter-intuitive concept of the holographic Universe, our Universe, including time, emanates from a flat two-dimensional field at its boundaries. Through the work of the Argentinian physicist Juan Maldacena (1997), this idea has become an important heuristic theory (it has for example been used to explain cosmic inflation). It might one day even reconcile Einstein's theory of gravity and quantum theory. That final theory of everything will, in any case, probably not be concerned with fields or space-time but rather with information exchange between physical processes. However, for now, there is still no definite empirical proof that what we perceive as reality must be conceived as a 3D projection of a 2D field.⁷

3.1.2. A state of primordial plurality.

A second and also somewhat speculative feature of the universal structure of evolution is a state of primordial or primitive plurality. Smolin (1998: 44) points out that nature is not as simple as physicists often claim. A really simple universe would, for example, be a universe, filled with a homogeneous gas of neutrons with a constant temperature and density. Compared to such universes, ours is "extraordinarily complex and varied!" And he adds: "We must understand how it came to be that the parameters that govern the elementary particles and their interactions are tuned and balanced in such a way that a universe of such variety and complexity arises" (ibid.).

One possible explanation for this conundrum is that there are (or have been) a very large number of universes and that only ours had, by chance, the right parameters to evolve and eventually produce life (the weak anthropic principle). Certain physicists, like Andrei Linde, even believe that this (i.e., the concept of the multiverse) is the only rational explanation. However, it is only if there are (or have been) at least 10^{229} universes that it becomes probable that at least one of them will, by chance, evolve to contain a variety of stars and other complex structures. We will later come back to Smolin's alternative explanatory scenario (the parameters change through time but in such a way that the emergence of a complex and biophilic universe becomes increasingly more plausible). For now, it suffices to say that it is not impossible that the evolution of our complex Universe emerged from a state of primordial plurality (i.e., a state, characterised by the existence of many universes, of which most did not evolve or underwent only minimal evolution).

Such a state has almost certainly preceded the evolution of complex life on our planet. We still do not have firm proof, but life has almost certainly popped up in various places, both on Earth and elsewhere in our biophilic Universe. However, in most cases, it probably has not undergone a meaningful or extended evolutionary development.⁸ Mars may very well

⁷ This may change in the near future: new research by Achúcarro et al. (2019) shows how the idea of the holographic universe might be empirically tested.

⁸ Complex, let alone (highly) intelligent life indeed is not necessarily ubiquitous. In most cases or places, life probably does not exist for a long time or does not attain a high degree of complexity (i.e., does not evolve much or even not at all), if it emerges at all. Maybe, only Earth has the right parameters for the evolution of complex and intelligent life. Put differently, it is very well possible that man is the only highly intelligent and technological species in the universe. See Tegmark (2017: 241-245), Gribbin (2011) and Davies (2010). See also note 17.

have been such a biophilic place. It had liquid water and was probably habitable for primitive lifeforms during the so-called ancient Noachian time period (4,1 to 3,7 billion years ago).⁹ The study of Mars rock and soil samples has revealed the existence of key chemical ingredients for life, including sulphur, nitrogen, hydrogen, oxygen and phosphorus, and we also know that this planet once had a magnetic shield. NASA astrogeologist and expert on Mars Christopher McKay (1997: 269), for example, believes that “if life arose on Earth, then it could have arisen on Mars as well.”

In the case of cultural evolution, the state of primordial plurality is very evident: a crucial distinction in the cultural evolution literature is that between cultures in general and the specific phenomenon of cumulative cultural evolution (henceforth CCE) (Mesoudi & Thornton, 2018). Many researchers believe CCE to be unique to human beings. Indeed, this is how this concept was first brought to prominence by Boyd and Richerson (1996) and Tomasello (1999): to contrast human cultures with non-human cultures. However, there is no agreement about the exact definition of CCE. Mesoudi and Thornton (2018: 2) refer in this respect to four core criteria: a change in behaviour or a product of behaviour, a transfer via social learning of that modified behaviour or product, an improvement in performance, in terms of genetic and/or cultural fitness, caused by this behaviour, and a repetition of these three steps “in a manner that generates sequential improvement over time” (p. 2).¹⁰ Whether one calls it CCE or not, and however one chooses to define it, it seems to us to be an undeniable fact that many biological species have a form of culture and also that forms of improvement of those cultures, or of elements of those cultures, sometimes occur but that *meaningful or extended* cultural evolution has been produced or generated by only one taxon: the genus *Homo*.

3.1.3. A seminal event (the first threshold).

What was the seminal event that started up the process of CCE? Henrich (2016) believes that by 1,8 million years ago, the threshold or Rubicon of cultural evolution had already been crossed but he does not offer a definite answer as to how it was crossed and why this only happened once in the history of life on planet Earth. He speaks in this respect of the start-up problem. CCE depends on social, as opposed to individual learning and requires a big, costly brain. Also, in order for natural selection to favour improved social learning, a lot of cultural information must already exist, which is a problem because, without pre-existing social learning capacities, it is unlikely that there will be much cultural information to tap into. Henrich’s speculative solution for this classic chicken and egg problem does not interest us here. The main point is that it was the development of advanced social learning that facilitated the birth of cultural evolution and that both were interconnected: CCE stimulated the development of social learning and vice versa.

A somewhat similar chicken and egg problem exists in the case of biological evolution. As Christian (2018: 97) puts it: evolution “really got going” only after the development of a DNA world by the descendants of LUCA, the ‘last universal common ancestor.’ This is when the most important distinction in life as we know it, that between nucleic acids, which carry information and proteins, which generate the phenotype, came into being. This is also the opinion of Maynard Smith and Szathmáry (1995: 12): “Perhaps the most important transition of all is that between organisms in which both the genetic material and enzymes were made of RNA (the RNA world) and modern organisms in which the genetic material is DNA and

⁹ The oldest known fossils are also 3,7 billion years old (Nutman et al., 2016).

¹⁰ CCE can also be interpreted as a means, ‘found’ by the universe, to decrease entropy even further since it can decrease the degree of uncertainty of a group of humans in a given context.

enzymes are proteins – a division of labour that requires that there be coding and translation.” In modern organisms, nucleic acids and proteins mutually presume one another and it seems, as the authors point out, that “neither can function without the other” (p. 61). Hence the chicken and egg problem: “Which came first, nucleic acids or proteins?” (ibid). It is still unclear whether both co-evolved or whether one of both came first. The main thing, however, is that the seminal event in biological evolution was the emergence of DNA/protein lifeforms.

According to modern estimates, the last phases of the Universe will probably be characterised by extreme and increasingly extended timescales (trillions upon trillions of years), to the point that time itself will become meaningless. The beginning of the Universe is characterised by exactly the opposite phenomenon: unimaginably tiny timescales. For instance, the Planck epoch (i.e., when the Universe was smaller than the “Planck length”) lasted about 10^{-43} seconds, whereas the inflationary epoch, which started approximately 10^{-10} *second later*, lasted approximately 10^{-20} seconds. During this tiny fraction of a second, the volume of the Universe expanded with a factor of 10^{78} . It was not the start of the evolution of the cosmos, in the same way, that Henrich’s Rubicon was not the start of cultural evolution or the advent of the DNA world the start of biological evolution, but it is definitely only after this first threshold that cosmological evolution “really got going.” Without inflation, stars, galaxies or other complex structures wouldn’t exist, as it were quantum fluctuations in space-time that caused different parts of the Universe to stop inflating at slightly different times.¹¹ This was important since it was the resulting variation in the density of matter in those different parts of space that allowed gravity to condense pockets of gas into stars. One might also say or suggest that the inflated Universe thus functioned, in a way, as the equivalent of Earth (for biological evolution) and man (for cultural evolution): it facilitated its own evolution.¹²

3.1.4. Structural thresholds.

The further evolution of the cosmos, life and human culture was characterised by the occurrence of new, small and big thresholds, such as the formation of the first atoms, stars, planets and heavy elements (cosmological evolution), the coming into being of the eukaryote cell or multicellularity (biological evolution, see, e.g., Maynard Smith & Szathmáry (1995)) and the taming of fire, the Neolithic revolution, the invention of the wheel and the emergence of the first cities and states (cultural evolution).¹³ To use the aforementioned book metaphor: each ‘part’ (i.e., each kind of evolution) of the cosmological ‘book’ consists of several chapters.

3.1.5. Two binary dimensions.

Lastly, evolution, be it of the cosmological, the biological or the cultural kind has, from a synchronic perspective, a micro- and a macro-dimension, as well as a horizontal and a vertical

¹¹ According to the theory of eternal inflation, many different patches of the cosmos can start inflating and blow up to new universes. Koonin (2007) uses this concept or theory to account for the (improbable) origin of life on Earth: in such a multiverse, the coming into being of a complex, coupled system of translation and replication through chance is possible.

¹² As pointed out before (footnote 3), Earth co-evolved with life and man with his cultures but it probably does not make sense to say that the inflated universe co-evolved with the (further) expanding universe (i.e., with itself).

¹³ Maybe, a distinction can be made between thresholds that increase the evolvability (i.e., capacity to evolve) of a kind of evolution and thresholds that do not have this effect. For example, the invention of fire facilitated further cultural evolution and the emergence of multicellularity was a catalyst for further biological evolution.

dimension. As to the former dichotomy: cosmological evolution ranges from the evolution of the entire Universe to the evolution of a star system or a single planet, biological evolution from the evolution of the entire biosphere to the evolution of demes and cultural evolution from the evolution of civilisations to the evolution of cities or institutions. Horizontal evolution consists of the splitting up of evolving entities in two or more subentities, vertical evolution refers to a quantitative or qualitative change in one and the same entity (e.g., galaxy, species, or city). Evidently, cladogenesis or speciation is a very important process in the evolution of life: the bewildering heterogeneity of life as we know it today is largely a product of this process. Cultures too, can split up in two or more subcultures. Lastly, there is evidence that galaxies can also fall apart in two or more parts: after running simulations, involving the Large Magellanic Cloud, one of the satellite galaxies of the Milky Way, Bustard et al. (2019) recently discovered that the intense heat, produced by bursts of cosmic rays, can tear galaxies apart.

3.2. The universal dynamics behind evolution

The factors, forces and mechanisms that drive cosmological, biological and cultural evolution are very diverse. Are some of them common to each kind of evolution? Put differently: are there universal evolutionary factors, forces and/or mechanisms? We believe that the answer is affirmative. The real question is how many universal evolutionary factors there are.

3.2.1. Selection?

Selection processes explain biological and cultural phenomena. But do they also play a role in cosmological evolution? Smolin (1998) certainly believes that selection plays an important role in the (speculative) multiverse (but *not* in a single universe). According to his fecund universes thesis, a collapse of a black hole leads to the creation of a new universe (reproduction) that slightly differs from its mother universe (variation). Consequently, each Universe produces as many new universes as it has black holes. Universes with infecund parameters never ‘reproduce’ (for instance because they soon reach heat death or maximum entropy) or ‘reproduce’ less than universes with fecund parameters. This way, universes become increasingly fecund and the emergence of a biophilic universe becomes increasingly likely, particularly because carbon, which is central to life, is produced by black hole-generating supernova’s. Unfortunately, it is thought that no information about a parent universe can survive the violent singularity at the centre (as opposed to the event horizon) of a black hole.¹⁴ In any case, if we understand under ‘cosmological evolution’ the evolution of the multiverse, selection might be an important force behind it, although it should immediately be added that Smolin’s interpretation of this process does not seem to be very plausible.

3.2.2. Constructive versus antagonistic interactions.

If there is a universal evolutionary force or factor, it is probably constructive interaction (‘self-organisation’): this seems to be a *conditio sine qua non* for attaining higher orders of complexity. Evolutionary entities combine into entities of a higher order or swap parts, or one entity becomes part of another one (symbiosis): subatomic particles combine into atoms, atoms into molecules, molecules into tissues, cells into more complex cells (symbiosis) and into multicellular organisms, single organisms into groups and entire societies and galaxies merge or are swallowed up by bigger entities. Also, many organisms have sex, hybridise or

¹⁴ See: ‘Smolin Vs. Susskind: The Anthropic Principle’ (2004). Available online: https://www.edge.org/conversation/lee_smolin-leonard_susskind-smolin-vs-susskind-the-anthropic-principle.

swap genes. This, in turn, maybe lends some credence to Margulis' (1998) claim that the standard theory of biological evolution (i.e., the Modern Evolutionary Synthesis), seriously underestimates the evolutionary importance of symbiotic and cooperative biological interactions and overestimates the role of competition.

However, as highlighted by authors like Dawkins (1976) and Maynard Smith and Szathmáry (1995), any biological jump in complexity, thanks to cooperation or constructive interactions, had its drawbacks with the appearance of new sources of conflicts and competition, especially between different levels of organization. For instance, the emergence of multicellular organisms was accompanied by intra-organism conflicts (such as cancer). Consequently, the emergence of more complex structures was often followed by the evolution of conflict-policing mechanisms (such as mechanisms to suppress the angiogenesis, invasion, and metastasis of cancers) and, thus, new layers of complexity.

3.2.3. Chance versus necessity.

Furthermore, cosmological, biological and cultural evolution are also caused by an interplay between chance and necessity and between negative (destructive) and positive forces or events. The question as to the importance of chance and human agency, compared to more structural and predictable, impersonal forces in human history, is a classic one. In biology, chance plays, for example, an important role in the generation of genetic variation and in genetic drift. Lastly, we already referred to the role that random quantum fluctuations in space-time played in the otherwise quite deterministic emergence of complexity in our Universe (they caused different parts of the Universe to stop inflating at slightly different times and thus caused the young, inflated Universe to be 'lumped').

3.2.4. Creation versus destruction.

Constructive interaction may be the main motor behind evolution, destructive forces and events certainly also play important roles in the emergence of higher complexity and more heterogeneity. This too makes perfect sense: the emergence of new, more complex entities often requires the destruction or death of more primitive entities. In the Universe, most galaxies have a destructive super-massive black hole at their centre. It is thought that this is no coincidence as they played an important role in their genesis: the jets of high-energy particles and radiation that active or 'feeding' black holes eject are believed to have triggered the birth of successive generations of stars and, thus, galaxies. Higher or heavier elements are formed in stars and ejected when they explode at the end of their lifetime. Everything that is composed of heavy matter, including the Earth and its living organisms, thanks its existence to these violent supernova's.

Another violent event, a catastrophic collision of young Earth and the Mars-size planet Theia, around 4.5 billion years ago, facilitated the evolution of life as we know it.¹⁵ At that

¹⁵ This collision is one of the reasons why Earth became, and still is, the ideal cradle for the long-term evolution of life, without either too much stability or too many disturbances. For example, the liquid-iron core of Theia joined up with the Earth's own liquid-iron core and reinforced its magnetic field, which acts as a shield against harmful solar and cosmic particle radiation. Also, so much of the Earth's surface was thrown into space (to form the Moon, which not only is the main cause of the tides, but also stabilizes the gravitational pull of the sun and Jupiter and thus acts as vital climate regulator) that only 30 percent of the original crust was left, which in turn allowed the continental plates to move around more easily. This continental drift became a key driver behind evolution. Lastly, the collision knocked Earth so that it was no longer spinning on a straight axis with respect to the Sun. This angle of tilt is the cause of the seasons, another important driver behind the evolution of life.

time, the evolution of life on Earth had probably not yet begun, but it would never have reached its current complexity without later, smaller catastrophes, including the impact of a meteorite in Yucatán (under a very specific and lethal angle of 60 degrees), 65 million years ago. Lastly, destructive forces and events also play central roles in cultural evolution: new, more complex civilisations are or were often built on the ruins of older, more primitive civilisations and new ideas, theories and technologies constantly replace older, abolished ideas, theories and technologies (i.e., Werner Sombart’s and Joseph’s Schumpeter’s notion of ‘creative destruction’).¹⁶

Concluding remarks

Mesoudi (2015) enumerates a number of advantages, for the study of cultural evolution, of viewing cultural change as a Darwinian process. Conversely, evolutionary biologists can also benefit from the comparison with cultural evolution. As emphasized above, the here presented version of it is provisional and preliminary (and undoubtedly rudimentary), but we strongly believe that a UGE may, in a similar vein, be of use in the study of the three main sorts of evolution and maybe even in the study of a possibly emerging fourth kind of evolution, that of artificial intelligence or intelligent machines.

Intriguingly, it lends tentative support to both the idea of the holographic Universe and the idea of the multiverse. If both the biological and the cultural sphere can be interpreted as an expression of information, the same may be true for the cosmological sphere (i.e., the visible Universe may indeed be a holographic projection of a 2D ‘source code’). Likewise, the fact that a state of primordial plurality was characteristic for both biological and cultural evolution makes it maybe more plausible that the idea of the multiverse is correct: the start of the evolution of our complex Universe may have been preceded by, or have coincided with, the existence and/or coming into being of a multitude of other, primitive universes. The UGE also suggests that a form of selection plays a role in the evolution of that, as yet, speculative multiverse (but probably not cosmological natural selection *sensu* Smolin).

Our UGE may also shed some light on an important discussion in biology. The aforementioned Modern Evolutionary Synthesis still guides a lot of research. However, it has always been controversial and has, in recent years, come under increasing attack from a number of scholars and biologists who investigate evolution under the guidance of the so-called Extended Evolutionary Synthesis (see, e.g., Laland et al., 2014, 2015). One of the main criticisms of proponents of this theory is that the Modern Evolutionary Synthesis interprets evolution almost exclusively in terms of adaptive processes, caused by the natural selection of genes. As we saw, selection is not even a certain part or component of our UGE. By contrast, constructive interactions and self-organisation are very much a part of it, something which chimes well with some of the alternative interpretations of evolution. Maybe an UGE can one day be an important source of inspiration for a long-sought-after, new or updated and more comprehensive evolutionary paradigm.

Lastly, there is also the idea of a fourth kind of evolution, that of intelligent machines. It has in recent years become more popular or mainstream, but was first formulated in the late nineteenth century, in the wake of the breakthrough of the idea of biological evolution. In his *Erewhon: or, Over the Range* (1872), Samuel Butler introduces the Victorian reader to a world that was strangely familiar but at the same time also very unfamiliar. It counted a royal

¹⁶ However, complexity can only increase through destructive events if the destruction is not complete: there must remain some partial information or structure intact. For example, complex atoms after the explosion of stars and laws, tools, buildings or writings after the fall of civilizations.

court, judges, lawyers, banks and universities but was on the other hand also characterised by strange habits, beliefs and convictions. For example, Erewhonians did not believe in an afterlife but in a before-life, illness was conceived as a crime and crime as an illness, births were seen as tragic events, and so forth. The protagonist also relates how Erewhon banned, at a certain point in time, machines: only rudimentary tools were allowed. This was done on the advice of a visionary scientist who foresaw a future when intelligent machines would take over power in Erewhon. This kind of reversion to a more primitive state is also portrayed in Tegmark's *Life 3.0* (2017): it is one of the ways in which we could escape the perils of technology and, more particularly, superhuman artificial intelligence.

Will cultural evolution really culminate in this fourth kind of evolution? In the same way, that cosmological evolution produced biological evolution and biological evolution cultural evolution? One day, the current emergence of various forms of artificial intelligence and of intelligent machines may be identified as a state of primordial or primitive plurality. Some, and particularly Kurzweil (2005), also foresee a 'seminal event': the technological singularity, a point in time when an intelligent artificial agent enters a runaway reaction of self-improvement, resulting in an intelligence explosion and in the coming into being of superhuman intelligence.¹⁷ It remains to be seen whether this, or a similar seminal event, will ever take place, but our UGE might very well help in assessing the probability of an emerging fourth kind of evolution and in predicting its possible course.

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¹⁷ He sees the singularity as the fourth epoch and believes that it will lead to the fifth epoch: the awakening of the universe. Our template rather suggests that the singularity is the real start of the fourth epoch.

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Section Two

INTELLIGENT MATTER

Social Turbulence as the Scientific Phenomenon: Operational and Strategic Change

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Perhaps for the first time in its history, the Ukrainian scientific community is at the epicenter of large-scale geopolitical changes, and undoubtedly for the first time, the Ukrainian people are uniting advanced democratic forces around themselves. The unpredictable behavior of social systems after reaching a threshold level of socio-political energy within the system is called social turbulence. The article investigates Social Turbulence as the Scientific Phenomenon, as well as Operational and Strategic Change, resulting from the analysis of current events. The Ukrainian people's war for their independence is a key factor causing political dissent in the functioning social system. It is the energy of political dissent of Ukrainians that causes social turbulence and, as a result, the change of the governing "world elite" and the reform of global institutions. The proposals of the "world leaders" Trump, Schröder and others to "cede" the territories of the Crimean Peninsula and Donbas in exchange for imaginary security guarantees from Russia demonstrate the true "effectiveness" of the existing security system and its unwillingness to withstand global challenges.

Keywords: social turbulence, scientific phenomenon, social trust, political dissent, social system

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Introduction

Perhaps for the first time in its history, the Ukrainian scientific community is at the epicenter of large-scale geopolitical changes, and undoubtedly for the first time, the Ukrainian people are uniting advanced democratic forces around themselves. The courage, determination and wisdom of the citizens of Ukraine, shown in the war against Russia, forced the world community to change the understanding of the place of Ukraine in global processes, as well as pay attention to the work of global institutions and the so-called “world leaders.” In the context of war, the position of the former President Donald Trump is being re-evaluated, who, according to Marshall Cohen, “praised Putin for how he handled the takeover of Crimea” and predicted that “the rest of Ukraine will fall (...) fairly quickly.” Echoing Kremlin propaganda, Trump said in a TV interview that the Crimean people “would rather be with Russia,” and that was “a position he also pushed in private” (Cohen, 2022). These were the actions of Trump and his Administration that “weakened Ukraine, divided NATO, emboldened Putin, and helped get us to where we are today” (Cohen, 2022).

In the context of war with Russia, the actions of German leaders, who “tacitly” encouraged Russian aggression in 2014, hampered the process of Ukraine’s integration into the European Union, while increasing economic cooperation with the aggressor country, receive a new assessment. It turned out that “Nord Stream-2” is a “political project,” and ex-Chancellors of Germany Gerhard Schröder and Angela Merkel, who actively promoted it, still continue to justify Putin’s actions. Anja Brockmann disappointingly claimed that Angela Merkel, who has long been considered the most powerful woman in the world, “does not doubt the correctness of her policy towards Russia.” Merkel stated this at the press conference on June 8, 2022, after four months of the war in Ukraine (Brockmann, 2022). The German establishment continues to cooperate with Russia, thereby actually financing its invasion of Ukraine. For example, the largest German oil and gas producer, Wintershall Dea, does not want to exit its holdings in Russia. “Our opinion of the Russian business has not changed,” said CEO Mario Mehren on Tuesday when the half-year figures were presented” (Gasförderer, 2022).

Such examples reveal the scale of institutional and ideological changes taking place in the world. The President of Ukraine Volodymyr Zelenskiy is forced to dedicate his regular appeals not only and not so much to the world establishment, but to the world community. In this way, the dissent from the ruling elites and the existing system of global security supported by them is expressed. The Ukrainians are initiating the change of world elites and the reform of global institutions.

The unpredictable behavior of social systems after reaching a threshold level of socio-political energy within the system is called social turbulence. The author investigates social turbulence as the Scientific Phenomenon, as well as Operational and Strategic Change, resulting from the analysis of current events. The Ukrainian people’s war for their independence is a key factor causing political dissent in the functioning social system. It is the negative energy of the political dissent of Ukrainians that causes social turbulence and, as a result, a change in the governing elites and a reform of world institutions. Peace in exchange for the territories of Crimea and Donbas, which is offered by “world leaders” Trump, Schröder and others, is regarded by the Ukrainian people as aggressor’s encouragement and injustice. The global security system must punish the aggressor, but not encourage his actions.

Social turbulence as the scientific phenomenon

A scientific phenomenon is an event or a sequence of events occurring in the natural and man-made world that can be observed and provoking thoughts and questions. The main feature of scientific phenomena is their use in instructional sequences to convey the personal experience of observation and in such a way as to construct an explanation based on evidence. The scientific phenomenon requires understanding and using fewer related scientific ideas to explain.

The first studies of turbulence as a scientific phenomenon date back to the second half of the 20th century, when the results of physical studies of turbulence began to be used to study various areas of human activities. For a comprehensive overview of the theoretical concepts of turbulence, see Jonathan H. Reed (Reed, 2021). In general, five dimensions of environmental turbulence were established along with a measurement scale. “The dimensions are: 1) complexity of the environment, 2) novelty of successive challenges encountered in the environment, 3) rapidity of change in the environment, 4) visibility (unpredictability) of the future, and 5) frequency of shifts in the level of turbulence. The scale defines five levels of turbulence for each dimension: 1) a repetitive environment (no change), 2) expanding (slow incremental change), 3) changing (fast incremental change), 4) discontinuous (discontinuous but predictable change), and 5) surprising (discontinuous and unpredictable change)” (Reed, 2021).

The most impressive results of the study of Social turbulence as the scientific phenomenon itself were achieved in the studies of Economic and social turbulence, which are interrelated. For example, the entrepreneurial opportunities and ethical dilemmas presented by technological turbulence were studied. The complexity of the relationship between the new entrants of the system and those already working in the established system was demonstrated. New entrants, using productive (e.g., innovation), unproductive (e.g., rent-seeking), and destructive (e.g., criminal) entrepreneurship, are essentially challenging the established industrial morals and laws. They are trying to change the socio-political legitimacy while the rest of the entrants withstand them upholding their rights (Hall & Rosson, 2006).

The developments in Economic and social turbulence helped understand the cause of economic and social upheavals in country states, as well as suggest the necessary ways to reform government institutions. For example, Michael Mitsopoulos and Theodore Pelagidis explained a unique international paradox. In the 1990s, the Greek economy combined relatively strong growth rates with a very weak performance on many other fronts ranging from poor labor and product market institutions and low competitiveness to poor environmental protection and high levels of corruption (Mitsopoulos & Pelagidis, 2009). The authors revealed the cause of subsequent crises in Greece and suggested ways to eliminate them.

Some industries have been found to be inherently turbulent, regardless of their past, present and future. Predictors of both operational and strategic changes have been identified, which include the level of turbulence and previous experience in managing the industry to bring about change (Reed, 2021).

In general, social turbulence is inherently change, which in itself can be both an opportunity and a threat. Social turbulence can be represented as follows. When the energy within the social system is low, i.e., when there is general satisfaction or at least assent with the government, the society shows social trust in the institutions of state power and management of the system as a whole. When the energy inside the system is high, i.e.

political dissent has reached critical values, social turbulence arises, which reorganizes or radically changes the institutions and other mechanisms of social ordering that exist in the social system.

One of the most important conclusions drawn as a result of a comprehensive analysis of the literature on the study of Social Turbulence as a scientific phenomenon is that the nature of the relationship between social trust and the dynamics of the growth of political dissent is still minimally studied and understood, and the studies conducted focus their attention mainly on the macroeconomic perspective, and not on the strategy of managing the social system.

Social trust and political dissent

Management of the social system is understood by us as a service to establish good order and effective mechanisms that regulate social and economic exchange. In fact, these are actions aimed at harmonizing social trust and political dissent. When in a social system there are millions of social particles that are simultaneously political actors, there will always be a significant part of the population displaying political dissent. These frustrated social particles, if they are energetic enough, will cross the threshold of the turbulent system, creating social whirlpools and whirlwinds that destroy social trust in society. These social particles will store the “internal energy” of this frustration, and the overall energy of the system will become higher making the system unstable and causing social turbulence. Let us briefly consider the meanings of social trust and political dissent as key actors of social turbulence.

Social trust is the main component of social capital (Burciu et al., 2020). Human virtues such as honesty, moderation, and duty fulfillment create a climate of interpersonal trust among people in the social system, while dissatisfaction with social services, non-democratic relations between government and citizens, ignorance of significant social identity, contribute to the accumulation of negative energy in the system, which leads to turbulence.

Social trust was defined from different points of view, i.e., from psychological, sociological, philosophical, and economical. In general, social trust means “the expectation that a person has from another person, group, or institution that they/it will manifest an ethical behavior now or in the future that is correct and oriented towards the common good” (Burciu et al., 2020). The analysis of Burciu et al. shows that there is a pronounced tendency in the social system “to trust people, groups, or institutions that exhibit predictable behaviors that are based on values close to or similar to ours” (Burciu et al., 2020). This tendency is formed by the institutions of state power as a set of core values promoted through education obtained in the family, school and social environment.

Trust is a key “social agent” that contributes to the functioning of the social system and its effective management. Trust always means the expectation of honest and correct behavior of people within the social system.

The transition from trust to distrust within the social system can occur gradually or suddenly along with the appearance of external perturbing factors and the creation of unpredictable context. Such main context is presented by political dissent.

In 1990, Anthony Giddens suggested a theoretical conception of the nature of modernity to the scientific community, which is based on the issues of security versus danger and trust versus risk (Giddens, 2008). According to Giddens, modern global social system, or “everyday life” on a global scale, is nothing more than the work of disintegrated institutions that link local practices to global social relations. As a result, The Sustainable Development Goals promoted by the UN (The Sustainable, 2015) are nothing more than a utopia, because

the nature of modernity is actually a risk. In fact, the international community as a social system is prone to social turbulence, because within the system, social trust and political dissent are combined.

In the modern nature of the social system, Giddens identified (1) globalization of risks, both in terms of intensity and in the sense of expansion of the number of related events affecting an increasing part of the population and (2) the risks created by “socialized nature” resulting from the infusion of human knowledge into material environment and changing relationships between people and the physical environment (Giddens, 2008).

The developed theoretical model of modernity helped Giddens to formulate the concept of ontological security as the main source of trust, which is based on the sense of security of people and things that are central to the concept of trust (Giddens, 2008).

However, for our study, namely, for understanding of Operational and Strategic Change in social turbulence, it is necessary to investigate the definition of political dissent.

Political dissent as a form of negative energy in a social system occurs when the relations between social positions and between social actors is threatened; when political power, as a key system-forming actor of the social system, does not provide “good order.”

According to Kowalewski, the greater the number of political actors claiming to be in control of a social system, the greater the likelihood of political dissent is and hence social turbulence (Kowalewski, 2019). It is explained by the fact that there will always be those who lose in the struggle for power, and the groups in which they exist will eventually become more and more radical as their inability to successfully exercise political power continues.

Political dissent is formed from the fact that the most active representatives of society are tempted by the opportunity to exercise power, but then they are disappointed in trying to do so and move into the category of radical opposition to power. In all cases, political dissent is caused by a sense of justice and a comparison of the normative vision with the real situation (individual or group). In general, two directions of the political dissent can be pointed out: “(1) “inward,” which results in changing the relationships within a group (by upholding a common perspective and shared beliefs); and (2) “outward,” when complaining enables change to the social structure” (Kowalewski, 2019). The identity function is associated with the creation of collective assessments of reality, and the relationship function is associated with the initiation and maintenance of social bonds.

Political dissent is considered one of the main responses of citizens and the main reason initiating social turbulence. The statements of politicians that political dissent is controlled by voting and that modern democracies make it possible to defend one’s interests and values with the help of arguments and votes, i.e. manifestations of social trust, are refuted by the crises of modern democracies. The European Social Survey provides interesting answers to questions about the relationship between political dissent and political activism (ESS Round 7, 2014). Comparison of average values of overall satisfaction with the life and some aspects of the situation in the country (economy, education, healthcare) in groups declaring their political participation or lack of it, allows us to speak of significant differences for all countries. Activities such as organizing or signing petitions are more likely to be undertaken by those who are satisfied with their life in general and political life, in particular, while participating in protest politics is more often undertaken by those who are dissatisfied.

The Legatum Prosperity Index, in its turn, exposes a comprehensive picture of the institutional, economic and social aspects of prosperity (The Legatum Prosperity Index, 2021). This index reflects the results of 167 countries. The areas considered important for the prosperity are inclusive societies, open economies, and empowered people. Social

capital is one of the pillars on which an inclusive society is based, and personal well-being is better ensured in the societies where social trust is one of the main values. According to The Legatum Prosperity Index, North American society (with a special focus on the US) is losing out in terms of unity, largely due to the tendency to emphasize institutional distrust. (The Legatum Prosperity Index, 2021).

Factors causing Social Turbulence

The last decades have been marked by a noticeable trend toward diversification of risks and a significant increase in the destructive potential of risks. The most recent World Economic Forum Global Risk Report shows that vulnerable societies exacerbate macroeconomic risk factors and contribute to social turbulence on a global scale (Granados Franco, 2020).

Kotler and Caslione identified and investigated a number of factors that cause turbulence that is described by the term *chaotics* (Kotler & Caslione, 2009). Kotler and Caslione considered these factors in relation to the post-crisis business environment, while we studied them in relation to the social system.

Factor F1: The information revolution.

“The Internet, telecommunications, and digitalization provide almost unlimited access to information/knowledge for all individuals and organizations, which means access to the main resource to compete globally” (Kotler & Caslione, 2009). The Internet and online communications have become a technology for the modern social system that can simultaneously reduce and/or increase social trust and political dissent. For instance, according to Giddens, social upheaval in modern time is inevitable, since risk is characteristic of its nature (Giddens, 2008). However, if it is added with the global pandemic and the war unleashed by Russia in Ukraine, then we are faced with the unprecedented fact of “certain-uncertainty.” In this context, the Information Revolution as a factor intensifies social turbulence, because the Internet and online communications spread and accumulate significant energy flows of political dissent. Regular appeals of representatives of the Ukrainian nation to the peoples of the world and their leaders have increased distrust in the existing “world leaders” and global institutions and, accordingly, have reduced the value of social trust on a global scale. Nevertheless, the victory of Ukraine in the war with Russia can also start the reverse process. The Internet and online communications can similarly spread and accumulate social trust towards new “world leaders” and reformed global institutions. The negative energy inherent in political dissent will decrease, and the social system will go through social turbulence and reach its new qualitative level.

Another example is discussed in the article by de la Cierva et al. In 2020, a Latin American university with a Catholic ideal went through a crisis when the content of an online bioethics course on homosexuality was posted on Twitter. This communication case study describes the objective and subjective circumstances of the case, how the problem developed, how various stakeholders reacted, and what the university did to deal with the crisis (de la Cierva et al., 2021). The authors of the study demonstrated how one publication on a social network could drastically reduce social trust and cause social turbulence across the state, with subsequent reform of the educational system, state institutions, and change in the governing elite.

Factor F2: Disruptive innovations.

“The technological developments of the last two and a half centuries have ensured a clear dominance of the West over other civilizations as they have led to increased productivity and economic growth, as well as increasing funds invested in research, education, continuous innovation, and other similar features of modern society” (Kotler & Caslione, 2009).

However, these technologies often encroach on the life and land of indigenous peoples. Their advance in the countries with developing economies takes place without any recognition and participation of these peoples. Political dissent further reinforces the unequal distribution of costs and benefits from such projects, since their decision is coordinated exclusively with the governing elite. Such societies will eventually find a way to release the pent-up political dissent caused by Disruptive innovations. The social system will “go through” social turbulence and eventually return to the state of social trust. The only question is how this release of negative energy will occur. Will it be a peaceful transition, likely to be accompanied by radical changes in the way the social system is run, or through a “Great Reset” and social collapse, likely to be accompanied by violence and destruction?

Factor F3: Ascension of the “rest of the world”

The financial crises of the 2000s actually aggravated the process of redistribution of forces in the world economy. China, the newly industrialized countries of Asia, and wealthy countries of the Middle East have begun to assert themselves as emerging economies. The BRICS group of countries, in fact, was able to oppose itself to modern democracies. At the same time, democracies exhibit turbulent behavior in the sense that they are irregular, dissipative and diffuse, as is the case with physical turbulence. The irregularity of democracies manifests itself in unstable configurations of political alliances between groups with different identities and interests. Democracies are dissipative in the sense that they constantly need more and more energy to maintain social trust and reduce political dissent. They demonstrate a constant desire for more and more suffrage, which ultimately leads to the fact that the internal energy of the social system becomes unsustainable and must find an outlet, usually either in communal or factional violence, or in a revolution leading to the more authoritarian and low-energy system. Finally, democracies are diffuse in the sense that they tend to homogenize social and class lines, leading to the destruction of the aristocratic leadership caste that traditionally provided the nation with strong social trust.

Compared to modern democracies, the BRICS group of countries are monarchies and aristocracies. In the systems of this type, there are far fewer political actors and, therefore, much less opportunity for the accumulation of negative energy due to political frustration that occurs when one’s political expectations do not correspond to reality. When the vast majority of social particles in a society do not initially have any political expectations, because they do not have a share of sovereignty and suffrage, then there is much less room for unrealized expectations, embodied in political dissent. In monarchical and aristocratic systems, political dissent tends to exist within the upper classes and manifests itself in court intrigues and the like, rather than wide-ranging strife or violence.

Factor F4: Hyper-competition

“Disruptive innovations, IT, the knowledge revolution, and the new “actors” in different markets together generate new driving forces of globalization and lead to an unprecedented increase in competition between large multinational corporations in different markets” (Kotler & Caslione, 2009). Those social systems that are less subject to social turbulence have a competitive advantage in the long run. Thus, modern democracies often win in the short term but lose in the longer term. Democracies, whose existence lasted more than two centuries, are unknown to modern history, while social systems with a monarchical and authoritarian system of government have existed for more than five centuries. For example, the Venetian aristocracy existed for more than 800 years and was destroyed by external intervention and not as result of internal processes.

Factor F5: The environment

Over the past four decades, international institutions and organizations, governments, the media, as well as the public in Western countries have exerted unprecedented pressure on all categories of companies to determine a specific code of conduct, especially in relation to environmental protection, consumer protection and the use of green technologies. As a result, Russia is blackmailing Europe with a “cold winter,” and Russian gas and oil have become the instruments of political pressure on the governments of European states, which has led to a virtual split within the European Union and a decrease in the effectiveness of the European security system.

Factor F6: Customer ability

Together with the expansion of the Internet, social media, and e-commerce, consumers around the world have acquired many sources of information, documentation, and choices for certain products and services. Consumers can already set clear product requirements and choose between different distribution options, which requires companies to be transparent and ethical.

Factor F7: Sovereign funds and other current factors

Funds from China, Singapore, Abu Dhabi and Kuwait have huge liquidity that is invested in corporations listed on Wall Street or on major European stock exchanges. The aggressive strategy of the funds is aimed at overcoming the protective barriers built by governments around certain industries or strategic sectors important to national security. “Other current factors” include the emergence of social crises generated by various factors and with influence at global, regional, national, or local levels; factors such as military conflicts such as those in Syria; political conflicts; international terrorism; cyber warfare; pandemics such as the current one; etc.” (Kotler & Caslione, 2009).

In general, these factors can, individually or in combination, generate real chaos in a social system. They can suddenly reduce social trust in the management of the system and the governing elite, or they can suddenly increase political dissent, causing the system to enter a state of social turbulence.

Conclusions

It is obvious, that uncertainty, turbulence and a chaotic business environment have become undesirable, but omnipresent “features” of social systems after the global crisis of 2007. This state of affairs with the social climate has greatly aggravated since the end of 2019 and up to the present due to the global pandemic, international terrorism, cyber wars, possible election manipulation, but most importantly, the Russian invasion of Ukraine launched on February 24, 2022.

Looking back at the consequences caused by previous peaks of social turbulence, regardless of their causes and nature, it should be claimed that changes are expected in many areas of political, economic and social life. First, at the microsocial level, the configuration of social trust models will change; interest in innovation and the introduction of new technologies in the sphere of the national military-industrial complex will increase; bets will be made on new approaches to human resource management that can reduce political dissent. Consistent reform of institutional and systemic management is expected at the macrosocial and global levels. The global security system is an immediate response to the violation of social trust by any state and the effective suppression of political dissent by reforms, as well as as operational and strategic change.

Operational change is associated with improving the structure, developing new products, introducing new technologies, decision-making procedures, control systems, etc. The change of this type occurs much more often than the strategic change. The ability to continuously improve through operational change is a valuable quality of a social system.

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The Visualisation of Cosmological Ideas in Contemporary Architecture

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This article examines the influence of cosmological concepts on the formation of the new aesthetics of contemporary architecture. Architecture, since ancient times, has been a visualisation of man's ideas about the structure of the cosmos. Processes of radical departure from the classical principles of architectural space have intensified since the early 20th century. This has led to an increased interest in nature and the active use of natural forms. These principles were embodied in the architectural experiments of Antoni Gaudi, the progenitor of ecological architecture, Friedensreich Hundertwasser, and in the practices of the representatives of the Bauhaus. The beginning of space exploration made the art world increasingly interested in scientific developments in the field of space. This has resulted in radical transformations in architecture, strongly influenced by the latest ideas about the universe's structure, and has directly influenced the nature of architectural forms. Architects such as Peter Eisenman, Daniel Libeskind, Rem Koolhaas, Bernard Tschumi, Zaha Hadid, and Frank Gehry have initiated a new cosmocentric architecture that uses wave-like aesthetics to visualise the rhythms of cosmic harmony and the aesthetics of transitions to states of instability and transitions occurring in the dynamic process of the universe as necessary components of an ever-changing and transforming system. At the same time, the authors argue that contemporary architecture does not completely detach itself from the traditions of the past, but actively uses the symbolism of ancient cosmological doctrines to create modern innovative spaces, emphasising the continuous connection between different stages of human culture.

Keywords: contemporary architecture, cosmological theories, wave-like aesthetics, deconstructivism, symbolism, harmony, innovation

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Introduction

Since its origins, architecture has served not only as a shelter for humans against the threatening forces of nature but also as a visualisation of worldview and cosmogonic ideas. Through architecture, *Homo sapiens* could feel that they are a part of the mysterious and boundless universe. The idea that man is a part of the immense, unexplored, and boundless universe and ought to master its laws for living in harmony with the surrounding world had, for thousands of years, been a basic principle of our ancestors' existence on Earth.

Even the first megalithic structures, such as Stonehenge, the purpose of which is still highly debated, may have been the first observatories or temples of the Sun; at the time of the summer solstice, the Sun rises through a gap in one of the arches of this cromlech, which is certainly not accidental. The idea of the megalith space observatory is supported by such scientists as Hawkins and White. They argue that Stonehenge could be a visualisation of a map of the stellar sky or a calendar.

Cosmic ideas also formed the basis of the construction of the ziggurats of Mesopotamia. These cult towers were oriented according to the four sides of the world, representing the cosmos. The stories of the ziggurat symbolised the seven planets – Saturn, Jupiter, Mars, the Sun, Venus, Mercury, and the Moon – and were painted in different colours corresponding to these planets. The architecture of ancient Egypt also had a set of cosmogonic ideas and a cult of the Sun at its core.

Ptolemy's geocentric system also had a significant impact on the principle of organising the architectural space of the ancient world, as well as on the naturalistic concepts of Aristotle. According to Rudolf Klein, the "Judeo-Christian comprehension of the universe was primarily temporal, which prompted the longitudinal arrangement of church interiors and intense involvement of time in the perception of space. Biblical thought was replaced by new ideas about the universe resulting from heliocentric theories of the Renaissance, which later evolved into modern cosmology based on Einstein's theories at the beginning of the 20th century. Contemporary architecture has sometimes been defined as a synthesis of these two concepts, i.e., the interplay between the bodily character of ancient architecture and the spaciousness of the sacred architecture of Christianity, as explained by Siegfried Giedion in his seminal work, "Space, Time and Architecture" in 1939" (Klein, 2014: 5-6).

Siegfried Giedion systematically and consistently investigated the cause-and-effect relationship between the specificity of the dominant worldview theories at different periods of Western European cultural development and the character of architectural structures that constantly changed per the dynamics of these transformations. Specific features of the architectural space were influenced by several factors, such as changes in speculative priorities, changing ideas about the structure of space, and the development of science and technology that contributed to the emergence of new construction technologies.

The connection between cosmological ideas and specific features of architectural structures can be seen in almost all periods of human culture (especially in ancient civilisations). However, our focus is on modern architectural transformations, which suggest completely new, creative approaches to the formation of human space, based on the mutual influence of cosmological theories and the creative ideas of the artist.

We can partially agree with the maximalist thesis of the American architect, architectural historian, and critic Charles Jencks, author of “The Architecture of the Jumping Universe: A Polemic: How Complexity Science is Changing Architecture and Culture,” who claims that “Our recent understanding is quite unique. We are the first generation to know the approximate age of the universe, its likely origin, the main lines of its history, and its fundamental principle of increasing complexity. We are the first to unravel the major laws of its development and the creativity, beauty, and catastrophe they must bring. We are the first to understand our significant place in a single, unfolding process that has lasted some fifteen billion years – and we are the first to celebrate and question these discoveries. In fact, we have a more creative view of nature than either the Christians or modernists could conceive” (Jencks, 1997: 7).

Charles Jencks’ position is a relevant inquiry into contemporary cosmological architecture, for he is critically revising the long-standing dominant view of the universe propounded by Christian thinkers and modernists. He argues that these theories are highly static, mechanistic, and predictable. On the other hand, space has a much more complex and dynamic organisation, which is constantly developing and may be compared to a continuous and dynamic creative process. Space, as well as creativity, always implies unpredictable vectors of development, “surges” and “subsidence”. Because of this, space is in opposition to a clearly defined, infinite, and immutable structure, which develops according to linear laws and resembles a dead and static machine. A synergetic conception based on the principle of overcoming linearity in favour of multidirectional, unpredictable development is incredibly appealing to Charles Jencks, who strives to observe human existence as a whole through the prism of self-organisation processes.

The view of space as a constantly evolving, transforming, and dynamic system is the starting point for our research on the relationship between cosmological ideas and the specific features of contemporary architecture, based on the wide range of existing studies in the field.

The authors of this research used the materials collected and analysed by Sergii Rudenko and Yaroslav Sobolievskyi in their research on philosophical ideas in the missionary work of John Eliot, in particular, the case of the influence of philosophical and cosmological concepts on Indigenous people of North America’s architecture (Rudenko & Sobolievskyi, 2021).

Principles of affinity with nature in modern and ecological architecture

The anthropocentric thesis that “man is the measure of all things” is now completely obsolete and has resulted in many disastrous consequences, including a global ecological crisis and the possible annihilation of humanity. This demonstrates that humanity is incapable of totally dominating the unpredictable forces of nature. It is also the reason the ancient principles of the harmonious existence of a man with nature, that man is not the ruler of nature, but only a microcosmic part of a larger and more perfect formation – a macrocosm – are beginning to be actualised with a new force in the space of modernity. This relationship, the interdependence between our lives and the state of the universe, the beginning of which lies in the environment around us, begins to determine the vectors of life and creative development for more and more people, including artists, who work in accordance with the principle of harmony with nature, space, and the universe.

The seeds of these ideas can already be noticed in modern architecture. For instance, Antoni Gaudí’s creative constructions exemplified the universal unity with nature, which was the prototype and the main source of inspiration for the author. Having had health problems as a child, he found solace in the fullest possible connection with the landscapes of Catalonia,

which inspired his innovative ideas. Although Gaudi remained a committed Roman Catholic throughout his life, the asymmetrical, rounded, and maximally natural forms of his architectural structures conveyed an intuitive feeling of the essence of universal harmony. Not by chance is Gaudi believed to be one of the progenitors of ecological architecture, which also, in our opinion, has a cosmological principle at its core.

One of the ideological followers of the Catalan genius was the Austrian representative of the ecological architecture trend, Friedensreich Hundertwasser, who even verbalised the basic principles of his own work in a manifesto titled “Speech in Nude for the Right to a Third Skin.” “Friedensreich Hundertwasser’s main architectural principle was the total denial of straight lines. He believed that a straight line in itself is unnatural” (Matusova, 2015).

Following Gaudi, the idea of using wavy lines in the design of buildings was actively used by representatives of the Bauhaus, who tried to radically revise the established approaches to architectural forms. The wave principle was also adopted in the 1930s by the Finnish architect Alvar Aalto, who skillfully combined the scientific achievements and progressive aesthetics of innovative changes.

Aesthetics of wavy forms and fractal architecture as a visualisation of cosmic harmony

Such a transition to more uneven, wavy forms can be seen in the so-called cosmological architecture of the late 20th-century, which, among many other eras, is analysed by the American architect, Charles Jencks (Jencks, 1997).

As a general critic of a theological worldview who had been trying to fit the idea of the universe into the framework of traditional beliefs and traditional explanations, Jencks nevertheless noted that some religious doctrines (e.g., Buddhism, Taoism, etc.) hold a deeper vision of cosmic processes, which is reflected in various cultural forms, including architecture. Together with his associates, one of whom was his wife, the architect tried to find new forms and new artistic metaphors to visualise the basic principle of the development of space history, the principle of the unfolding universe. Jencks, emphasising the principle of development and constant flux, suggests that we call this dynamic process “cosmogenesis” (Jencks, 1997: 10) because it is opposed to something static and immovable. The creative visualisation of this principle is the spherical model, the sphere, which unfolds from the centre in a spiral, resembling a wave. This model has indeed become one of the core elements and symbols of contemporary space-centric architecture.

Jencks notes that in modern contexts, the artist, architect, or writer can create their own creative spaces that are metaphors of the boundless universe, in which modern scientific research, echoes of traditional doctrines, and modern symbolic visualisations of these visions will be combined, taking on a peculiar, authorial specificity. “For artists and architects to portray the new world view with its dynamism and ceaseless fecundity, either new languages of expression must be sought, or previous languages developed further. The life of forms in art is the measure of cosmogenesis. In this sense, an aesthetic of creativity is the last judge of the cosmic process” (Jencks, 1997: 11).

In his study of contemporary cosmocentric architectural practices, Jencks draws on his own architectural and design projects implemented in Scotland.

The author notes that so-called “fractal architecture” is beginning to proliferate in the modern urban space of many megapolises. At the core of the fractal architecture is a special “fractal” design built on the aesthetics of broken, uneven planes that resemble the shape of crystals, maximising the fluctuations of light and shadow, thereby creating incredible lighting

effects. In the 1920s, expressionist architects used something similar in their experiments, trying to move beyond the standardised, straightforward patterns of classical architecture. “In his project for an addition to the Victoria and Albert Museum in London, Daniel Libeskind has produced a fractal architecture that jumps out of the ground in a series of six leaps. Six boxes push through each other, part cubes, part rhomboids like the ace of diamonds. The flat, intersecting walls, as calculated by the engineer Cecil Balmond, actually become the structure, allowing column-free interiors, so the crushing shapes have a functional rationale” (Jencks, 1997: 12).

In such architectural structures, Libeskind tries to demonstrate the close connection between scientific knowledge and creativity, which in modern times cannot exist outside of constant intersections with new scientific discoveries, including those in the field of space. Contemporary artists in architecture now feel a profound need to overcome the past antagonism between the man-made and the natural world, which has led to numerous artistic approaches to the realisation of these ideas in real buildings that fundamentally change the urban aesthetics of modern cities. Fractal architecture is just one of the variations of multiple experiments and trends, through which the artists visualise their desire to demonstrate the unity and connection of human life with cosmic perfection.

“Another form-language is growing beside the fractal, an aesthetic based on waves, folds, and undulations. Often this form-language is derived, by analogy, from the wave motion that underlies solitons and the quantum world and, perhaps, from Superstrings – those minuscule vibrating units of substance – which underlie the universe itself. Also part of the new repertoire are the twist and warp, characteristic motifs of dramatic change which Catastrophe Theory has illuminated in so many areas. It is no surprise to find these jumping shapes emerging in what might be called Nonlinear Architecture (after nonlinear dynamics, a generic name for the complexity sciences). A new shared language of expression is growing, an aesthetic of undulating movement, of surprising, billowing crystals, fractured planes, and spiralling growth, of waveforms, twists, and folds – a language more in tune with an unfolding, jumping cosmos than the rigid architectures of the past” (Jencks, 1997: 13).

One of the most famous architects of modern times, Canadian-American Frank Gehry, offers us a slightly different direction of architectural visualisation of his futuristic ideas. His large-scale innovative projects have been implemented all over the world – in America, Canada, Germany, Spain, the Czech Republic, Israel, France, Australia, Panama, etc. His style is often associated with deconstructivism, whose representatives tried to overcome the principles of Euclidean geometry, radically transforming the experience of their predecessors, and preferring more cosmic forms, which, at the visual level, seemingly overcame the laws of gravity. However, the author notes that he puts deeper meanings into his works, transcending the boundaries of deconstructivist aesthetics. Sharing a belief about the need for a radical revision of the basic principles of contemporary architecture with such colleagues as Peter Eisenman, Daniel Libeskind, Rem Koolhaas, Bernard Tschumi, and Zaha Hadid, Frank Gehry still tries to develop his own principles of architectural aesthetics, combining the principles of harmony and the latest technological advancements.

One of the most striking examples of the fulfilment of this goal is the Guggenheim Museum Bilbao, a contemporary art museum, the construction of which was initiated by the Basque government, which applied to the Solomon R. Guggenheim Foundation with a proposal to invest in this project and create a landmark cultural and artistic innovation on the banks of the Nervión River. Frank Gehry’s project won the competition because he offered the most modern, extraordinary, and innovative architectural solution. The architect paid

special attention to the idea of randomness while structuring wavy surfaces that were actively used along with other innovators. This directly correlates with the synergetic principle of unpredictability in the development of complex systems. “As Gehry has said, ‘If I know how a project was going to turn out, I would not do it’” (Soans, 2019).

Gehry’s use of innovative software to model the layout of the building was a true combination of the latest technological achievements in the aerospace industry and modern architectural practices. The software provided by the French aerospace company Dassault enabled the architect to create the space-like wavy shapes of the Guggenheim Museum, which still make a striking impression on visitors today. Ukrainian authors emphasize the importance of using innovative technologies in modern practices in the article “Visualization of Culture Using Computer Technologies” (Petrova et al., 2022).

This kind of building was radically criticised by Jean Baudrillard, who called the Guggenheim Museum in Bilbao a perfect example of virtual architecture, which no longer reflects the truth, authenticity, or talent of the author, but only the technical potential of the use of computer technology (Baudrillard, 1999). Baudrillard was concerned not just with the existence of such architectural forms, but with the prospect of total absorption and ousting of other, alternative, traditional objects by them. He believed that this technological principle, capable of producing thousands of similar buildings using computer programs, is a symbol of the domination of the artificial over the real. Baudrillard assumed that soon the real would end, to be replaced by a simulated reality (Baudrillard, 1999). However, it may be worthwhile to critically review such extremely pessimistic predictions and a radically negative assessment of contemporary architectural innovations because, in the history of human culture, any attempts to abandon long-established traditions have provoked fierce resistance. Such resistance is natural when modernity collides with the past. These “transitions” and “breakdowns,” which are a natural component of not only cultural but also cosmic development in general, have always led to the emergence of new, unique forms in all fields of artistic creativity. The current situation in the contemporary art space is no exception to this rule.

One of the most outstanding and famous architects of our time, who made the most of her futuristic fantasies by creating an extraordinary parametric world through innovative buildings, was Zaha Hadid. Despite the strong resistance she encountered throughout her life as a woman in the male-dominated world of architecture, Zaha achieved success and became one of the most popular and sought-after architects of her time. Her aesthetic principles were based on her fascination with the avant-garde experiments of the early 20th century, with a particular emphasis on the works of Kazimir Malevich. “Her graduation project was named Malevich Tektonik (1977). It was a hotel project on the Hungerford Bridge, influenced by Kazimir Malevich’s painting, his thoughts of antigravity, and using pure geometric forms. Her later projects were either characterised by abstract and fragmented forms or fluid and free forms. She designed over 950 projects in 44 countries. Her success could be attributed to her innovative designs, unique radical concepts, design strategies, and design techniques” (Sebastian et al., 2018).

Despite her early engagement with the ideas of deconstructivism, Zaha Hadid was not a follower of Derrida’s approach but was inspired in her work by the ancient traditions of Arabic calligraphy and Chinese and Japanese architecture, in which unity with nature and the perception of any man-made object as part of macrocosm were basic and immutable. Her architectural forms were far from a complete denial of experience, although, in terms of form and content, they were certainly a new wave in the architectural practice of postmodernism.

Like her predecessors, the pioneers of ecological architecture, Zaha tried to find new links between man-made buildings and cosmic perfection, making her designs more reminiscent of images from science fiction films of alien worlds and civilisations living in boundless space rather than anything earthly or utilitarian. Zaha demonstrated in all her works a rejection of the rational principle of total use of right angles, which, in terms of utilitarian convenience, have always prevailed in the architectural forms of the past.

Her innovative, wavy curves in buildings seem to continue the gentle lines of natural objects, most powerfully visualising the rhythms of cosmic perfection and universal harmony. The futuristic building of the Nuragic and Contemporary Art Museum (Italy) more closely resembles an element of a future space city than an earthly object with a clear functional purpose. Moreover, the combination of the cosmological author's design with the remarkable practicality and functionality of some of the projects is fascinating. For instance, the King Abdullah Financial District (KAJD) Metro Station is an extremely important element of the new Riyadh Metro system. Multilevel spiral sinusoidal transitions and the building configuration in the form of a three-dimensional grid maximise the dynamic flow of passengers within this space.

Zaha Hadid implemented the same wave-like principle in many projects, such as the Heydar Aliyev Centre (Azerbaijan), the London Aquatics Centre built for the 2012 Summer Olympics (UK), the Nuragic and Contemporary Art Museum (Italy), Zaragoza Bridge Pavilion (Spain), Wangjing SOHO (China), the Abu Dhabi Performing Arts Centre (UAE), Al Janoub Stadium (Qatar), the Serpentine Gallery (UK), and others.

This principle of the organisation of architectural space, in addition to the fact that it corresponds to many natural forms, also correlates with the ideas of quantum physics, which uses the concept of the “waves” surrounding us everywhere as an important element of the functioning of the cosmic system. Nowadays, physicists even suggest that human thinking is also of a wave nature. According to Charles Jencks, “the waveform contains the properties well known as ‘quantum weirdness’, the paradoxical and essential mind-quality of the universe. This is not the place to discuss the extraordinary aspects of quantum mechanics, but the waveform and function are so basic and important in the universe that it is the place to emphasize the fundamental place they should have in architecture” (Jencks, 1997: 49).

When looking at the architectural structures of Zaha Hadid, one recalls scenes from David Cameron's “Avatar” movie, where the harmonious natural world of alien inhabitants emerged as a phantasmagoric floral form with soft, curved lines that were maximally close to the natural world, making a most pleasing visual impression. It is no coincidence that Cameron, in this cult film, raises the sensitive issue of opposition to natural harmony and the technocratic, consumerist world, which, for the sake of mercantile interests, is capable of destroying everything around it, not limited to its home planet. In *Avatar*, the idea of restoring primary harmony with the surrounding world through the actualisation of the intuitive involvement of our inner world with the outer world, which is an extension of ourselves, sounds incredibly powerful.

In this context, associations immediately arise with many of the natural-philosophical doctrines of ancient Greece, in which cosmic perfection and harmony were the main reference point in all human activities. The Pythagorean idea of the “music of the spheres,” harmonious music created by the unique sounds resulting from the movement of the planets, suggested that man, immersed in his earthly existence, lost the ability to hear these sounds of universal harmony. To restore this important capacity, man needs to free himself from the temptations of sensual, inferior perception and revive this lost ability. It is no coincidence

that in *Avatar*, Cameron demonstrates the process of passing the initiation, which results in complete unity with the surrounding world. This is essentially a rebirth in a completely new incarnation, which involves the restoration of the ability to intuitively and unconsciously feel the harmony of belonging to the surrounding world.

These processes of initiation were an integral part of the ancient Greek mysteries, which were based, among many other things, on the principle of harmonic correspondence between music and architectural form. For this reason, it was assumed that the architectural structure and its elements, to be as harmonious as possible, should include musical analogies and should be reminiscent of a musical string, the harmonious, correct sound that depends entirely on the mathematical rules of musical intervals. Therefore, it is no coincidence that in ancient Greece, the principle of the “golden ratio” was a kind of canon both for paintings and sculptures, and architectural structures, which had to incorporate this ideal proportion.

Although contemporary architects – the proponents of a return to the principles of universal harmony – deviate in their innovative structures from the commonly accepted canons of classical architecture, their works become evidence of the emergence of new ways of visualising the sustainable principles of the coexistence and interaction of micro and macrocosmic spaces. Only in such a system of relationships can man comprehend the essence of his existence on planet Earth. It is no coincidence that Volodymyr Vernadsky, in his work “Biosphere and Noosphere,” emphasised that “the biosphere cannot be comprehended through its phenomena if its clearly visible connection with the structure of the entire cosmic mechanism is overlooked” (Vernadsky, 1989: 13).

Contemporary architecture as a visualisation of the rhythms of cosmic transitions from harmony to chaos and calamity

A fervent desire to oppose the principles of the consumer society has informed the innovative transformation of the living space of modern people based on synchronisation with the principles of universal development, as demonstrated in the architecture of Zaha Hadid and her creative colleagues. At the same time, artists are aware of the fact that the system of cosmic development involves constant movement and, thus constant transitions from states of harmony to periods of instability and chaos, which is the basis for the emergence of new creative opportunities. The idea of the Big Bang has quite often been used as a metaphor for the genesis of non-standard, creative solutions in the search for new architectural forms. Hadid also used this idea in her work. For example, when designing the interior space of the Gmurzynska Gallery (Zurich), the artist tried to visualise the idea of an explosion, which, through the invasion of black on the white walls, creates the impression of maximum destruction and damage to the surrounding space. “The explosion expressed in black and white painting on the walls, ceiling, and ground creates a sense of movement through the explosion” (Sebastian et al., 2018).

The authors of the article, “The Design Approach of Zaha Hadid,” note that in some of her buildings, the architect tried to defy the laws of gravity by creating the visual effect of breaking these principles using certain technological methods. Elements of her buildings seem to be floating in the air, seemingly defying gravity, as in the Pierre Vives building (Montpellier, France), or curving in an arc following the angle of a natural slope, as seen at the Villa for Golf and Spa Resort (Copenhagen), or leaning as if under the impulse of a powerful storm, freezing in an unusual position forever (the Eli and Edythe Broad Art

Museum, Michigan State University). This is reminiscent of the avant-garde play with a form that the Suprematists once practiced but in the space of architectural elements that are weightless in space and independent of gravity. There are no aggressive rhythms in these buildings, despite their unconventionality and uncommonness. They demonstrate a certain phase of infinite development involving phases of so-called transition, which are necessary to prevent stasis.

For this reason, in trying to represent the different stages of cosmic development, architects introduce the rhythms of global breakdowns and even catastrophes into their designs, which become the driving force of the transition to another level of development with entirely new opportunities and energy potential. One can find relevant parallels between the conceptual content of these experiments and the latest scientific developments in theories of catastrophes, such as the catastrophe theory of Rene Thorn. “Catastrophe Theory is not primarily concerned with what we call catastrophes but, rather, the more prosaic ‘phase transitions’ that are everywhere visible in nature: the dramatic transformation of water into ice at zero degrees centigrade, or into steam at one hundred degrees centigrade; the sudden transformation of a corn kernel into popcorn; the sudden emergence of a rainbow. Phase transitions occur when systems are pushed far from equilibrium by adding heat, energy, or information. They can be represented in two different ways: either by a bifurcation of one linear development into two lines or by a fold, twist, pleat, or crushed plane” (Jenks, 1997: 53).

Of course, to convey the rhythms of catastrophe, of breakdown, of the phase of the global transition to something new, one needs entirely different aesthetic principles from the ones we have discussed earlier. Architectural stylistics here tend to make extensive use of sharp curves, which are symbols of breaking and folding. This partly corresponds to the natural features of the landscape in which the architect places his building. For instance, Japan is located in a zone of constant seismic activity and the rhythms of constant tectonic landslides are reflected in the creative ideas of some architects. Some of the projects designed by Peter Eisenman visualise the transformation of architectural forms as if they were impacted by an earthquake. “Several of his folded buildings in Japan look as if the underground tectonic plates pushed against each other, creating earthquakes, and have erupted into the structure, making it collapse. Indeed, his intention is, in part, to represent this omnipresent form of catastrophe, especially because it is so much on the mind of the Japanese” (Jenks, 1997: 55).

Similar chopped forms, the aesthetics of breaks and abrupt transitions, are found in the architecture of Zaha Hadid, who was on a constant search throughout her life and never preferred any particular principle in her works.

It is possible to draw certain parallels between the phenomena of universal catastrophes and the tragic events in our human history by visualising these rhythms in architectural forms, as Daniel Libeskind did when creating the Jewish Museum in Berlin. The unimaginable horrors of the Holocaust are depicted in this building in the form of zigzags – unnatural, abrupt – and tearing curves and transitions, fractured lines that symbolise the shattered and ruined lives of tens of thousands of German Jews. “Obviously Libeskind did not set out to illustrate this *per se*, nor the theory of sudden emergence. Yet because his characteristic grammar of design has a fractal quality and is based on a metaphysics of cosmic complication – the presentation of opposites – it naturally reveals cataclysmic shifts and violent change. The ‘void’ down the non-center of the new museum symbolizes the unthinkable nature of the Holocaust, the unrepresentable fact that 240,000 Berlin Jews were uprooted from their homes and deported to their death. The crime has an architectural consequence” (Jenks, 1997: 62).

The impact of Eastern cosmological ideas on contemporary architectural symbolism

When considering the symbolic meanings embedded in the architectural space of the Jewish Museum, it seems reasonable to consider some elements through the lens of different cultural traditions, which will enable us to see the multiple meanings and depths of these elements. In the context of the aforementioned architectural solution, there is an interesting symbolism in the void as a symbol of physical destruction, wiping off the face of the Earth and crossing out the lives of a tremendous number of Jews. However, this context carries a purely Western European negative attitude towards the void as such, which is a visualisation of a total vacuum. The association of empty space with loneliness, abandonment, and the absence of life in the city is also quite common. However, very different symbolic contexts can be found concerning the use of emptiness in the Islamic architectural tradition. This tradition emphasises the impossibility of visually defining God, which turns emptiness in buildings into a symbol of the absence of anything corporal and material, detaching us from everything unnecessary and earthly and enhancing our ability to contemplate the absolute. Rudolf Klein, a scholar studying the influence of Eastern cosmological doctrines on the development of Western European Art Nouveau architecture, notes that “the acceptance of the void was fostered by the cosmology of Jewish mysticism and Sufism – God as space or an all-encompassing entity – as well as the idea of holy vacancy in Buddhism as the ultimate cosmic reality. The acceptance of the non-discursive surface, the rejection of the anthropomorphic representation of architecture, the face-facade metaphor, for example, (as well as the head-capital, backbone-chimney, eyes-windows, mouth-door metaphors) relate to the image ban in Islam, which is actually rooted in Judaism” (Klein, 2014: 7).

For this reason, in the context of the Jewish Museum in Berlin, it is reasonable to consider various symbolic interpretations of empty space because, as a symbol of God’s presence amongst the Jewish concentration camp victims, the empty space brings us to an entirely different level of understanding of the architectural idea, even if such meanings were not intended by the architect himself at the time the building was designed. Another symbolic fact is that the word “emptiness” in Hebrew – “halal” – has the same numerical correlation to the number 68 with the word “life” – “haim.”

We can fully agree with Rudolf Klein that Jewish, Buddhist, and Islamic cosmological systems have significantly influenced the distinctive features of Western European modern and, partially, postmodern architecture. Klein claims that “prior to modernism, architectural theories were reflective, like those of Vitruvius, Alberti and, partially, of Semper too. However, as modernism rejected tradition, prospective theories and ideologies took precedence in architecture. I argue that this is the moment when extra-Western cosmologies began to influence Western architecture either indirectly, through the medium of non-Western art and architecture – Islamic, Buddhist, etc. – or directly, by incorporating Eastern religious or mystical elements into Western architectural theory and practice” (Klein, 2014: 6).

The socio-cultural principles of Japan and China also influence modern Western culture and art. “Confucian approaches and East Asian models of successful modernization have been increasingly influencing the socio-economic policy of some Central and Eastern European states, inducing therein the effective interaction of Confucian, European, and universal values” (Piliaiev, 2021: 86).

Globalisation processes, which have already radically transformed all aspects of our lives, have made significant modifications to the architectural principles of the Eastern megacities.

As a result, we have been witnessing the organic intersection of ancient cosmogonic doctrines and their symbols with modern, innovative construction technologies. The Lotus Temple in New Delhi, India, designed by Fariborz Sahba, an architect of Iranian origin who spent most of his life in the United States and Canada, is a striking example of such synthesis (Lotus Temple, 2017). This is also an example of the globalising principle of the intertwining and “cross-pollination” of different cultures in the field of art. The main temple of the Eastern Bahá’í religion was designed in the form of the lotus flower, one of the earliest and most important sacred symbols in North and Northeast Asia. As an incredibly important element of the ancient Egyptian cosmological system, the lotus flower was associated with the Sun because it opened its petals in the morning and gathered them into a bud in the evening, thus symbolising the eternal cycle of life. Later the lotus flower was to take an important role in Hinduism, Jainism, and Buddhism, symbolising the creative potential of the cosmic elements. In the Hindu tradition, the lotus flower also serves as a symbol of creation because it is associated with the womb, representing the origin of human life. Therefore, it also corresponds with the sacred image of the mother-goddess. As a manifestation of the unity of the three elements – water, Earth, and air – it is also considered to be a symbol of purity and beauty.

With such deep archetypal roots in long-standing Eastern traditions, the Lotus Temple also impresses with the innovative principle of architectural design employed by Fariborz Sahba. “The structure is composed of three ranks of nine petals each, springing from a podium which elevates the building above the surrounding plain. The first two ranks curve inward, embracing the inner dome, while the third layer curves outward to form canopies over the nine entrances. (...) The double-layered interior dome, modelled on the innermost portion of the lotus, comprises 54 ribs with concrete shells in between. The central hall has a diameter of 34 meters and a height of 33.6 meters above the podium. (...) Nine reflecting pools surround the building, their form suggesting the leaves of the lotus. External illumination is so arranged as to make the lotus structure appear floating on water” (Bahga, 2017).

For all Bahá’í temples, a major distinctive and symbolic feature is that the buildings have nine corners at their base, forming a rounded shape. The number nine in many cultural traditions denotes omnipotence, which is associated with the unlimited powers of God. Bahá’í sacred principles do not involve any images in temples, and neither do Islamic or Jewish traditions, shifting the emphasis to the symbolism of architectural elements.

However, this was not the only instance in which the ancient symbol of the lotus flower was used for the design of modern buildings. The ArtScience Museum in Singapore, designed by an Israeli–Canadian–American architect and built in 2011, also took on a transformed, modernised, and less literal lotus shape than the Lotus Temple. The flower’s slightly trimmed petals, adding one more in number than in New Delhi (there are ten of them), also trigger associations with an open palm that reaches out to welcome us. These unfolded lotus petals form an incredibly large building of 60 metres in height, hovering over the ground in a rather unusual position. From an engineering standpoint, it was a challenging task to realise such a non-standard slope because one part of the lotus was much larger than the other, which could have caused one part to fall over on its side. However, modern technical features made it possible to solve this problem and optimally balance the building, which, in this context, was also an example of the great opportunities provided by cutting-edge technology. In addition to the innovative architectural aesthetics, the building is marvelously functional, as the dish-like shape of the roof is used for collecting rainwater, which is used for the museum’s lavatories.

We can thus see how such impressive architectural constructions organically incorporate thousands of years of cultural tradition, visualising the symbolic elements of ancient

cosmological systems and the modern features of the latest technological advances and thereby demonstrating the close connection between science and art in the modern world. Similar examples of the relationship between theoretical ideas about the cosmos and artistic practice are also available in other Eastern countries. For example, Ukrainian researchers note “that historically the first in the philosophy of Ancient China was the problem of the unity of the universe” (Rudenko & Liashenko, 2020: 95). Therefore, one can hardly disagree with the thesis of the Ukrainian researcher, Natalia Semeniuk, who claims in her article “The Contemporary Cosmological Models: in Search of the Ways of Systematization” the following: “Indeed, natural or cosmological activities must be at the heart of social and civilisational advancement and development. That is, planetary thinking as a consequence of globalization processes and the acceleration of the technical impact on the environment requires qualitatively new management, which would be focused on the conservation of the planet’s resources and the peaceful exploration of space” (Semeniuk, 2020: 30).

Conclusions

As a result of the study, we came to the following conclusions:

1. Architectural structures have always been a form of representation of human cosmic ideas. Such ancient megalithic structures as Stonehenge, the Mesopotamian ziggurats, the Egyptian pyramids, etc., serve as reliable evidence of such a claim. Siegfried Giedion’s comprehensive study of the relationship between the character of the architecture and existing worldview systems reveals the processes of architectural transformations from the Renaissance to the present, giving us a detailed picture of the cause-and-effect relationship in this process.
2. Contemporary scholars who analyse the transformation of contemporary architecture, such as Charles Jencks, emphasise the significant influence of new cosmological ideas on the nature of contemporary architecture. Ideas about the complex and dynamic structures of the cosmos, whose development is sometimes unpredictable, become especially relevant. This corresponds to the modern principles of synergetics. The cosmos includes both periods of harmonious stability and phases of “transition” towards states of cataclysm and chaos, which, at the same time, reveal a powerful innovative potential. All these processes are reflected in the styles of contemporary architecture, which are becoming increasingly cosmocentric.
3. It has been established that such modern architects as Antonio Gaudi, Bauhaus representatives, Friedensreich Hundertwasser, and pioneers of ecological architecture were the precursors of cosmocentric architecture. Their principles of reference to natural forms became a basis for further architectural transformations towards the restoration of harmony between the man-made and natural worlds.
4. Wave-like and fractal aesthetics form the basic foundations of cosmocentric architecture, manifesting in such solutions both the principles of quantum physics and the visualisation of the existing scientific experience of the nature of fractals. The new architectural aesthetic of waves repeats the spiral, wave-like development of the universe, negating the principles of stasis and immovability, and evoking associations with constant motion, dynamics, change, and unpredictable scenarios of further development. The most prominent contemporary architects representing this principle are Frank Gehry and Zaha Hadid.

5. Along with visualising the principles of cosmic harmony, contemporary architecture also reproduces the rhythms of cosmic transitions to the stages of breakdowns and cataclysms, which are manifested in the use of breaking lines, sharp curves, and emptiness. This principle accurately correlates these cosmic processes with, for instance, such tragic events in human history as the Holocaust. The Berlin Jewish Museum is a good example of the visualisation of such an architectural approach.
6. This article demonstrates that, along with a radical rejection of the principles and styles of the past, some forms of contemporary architecture make reference to the symbolism of ancient Eastern cosmological doctrines. As a result, outstandingly unusual and innovative buildings appear, which organically combine contemporary architectural approaches and ancient traditions. Such examples demonstrate the possibility of an integral synthesis between the artistic practices of the past and the present.

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Cosmological and Religious Symbols in the Film *Alita: Battle Angel*

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This article aims to identify cosmological and religious symbols in the film Alita: Battle Angel (2019). We systematize the religious symbols present in the film and determine which religious tradition it belongs to. It has been established that the film contains the following early Christian religious symbols. The main character of Alita has common features with the figure of Jesus Christ: 1) the symbolism of baptism in obtaining an "transfigured" Alita's body; 2) sacrificing one's body with a future resurrection in a more perfect bodily form; 3) love and willingness to sacrifice oneself for the sake of this love. Just as Jesus Christ sacrifices himself for those he loves, so Alita is willing to give her own heart to the object of her love; 4) the relationship with the Father character. In a relationship with Dr. Dyson Ido, Alita goes through a difficult path from hostility and non-recognition (at the beginning) to reconciliation and recognition of him as a father; 5) the symbolism of the sword. It was also found that the world in which the film's events take place has distinctive Gnostic features. The Gnostic trope is present, according to the terminology of Pavel Nosachev. The evil demiurge Nova governs this world full of suffering. The main character gradually solves the deceptive nature of reality (by recollection). The use of religious images in popular culture reflects the expectations of modern audiences.

Keywords: Alita: Battle Angel, Jesus Christ, Gnosticism, religious symbols, cosmological symbols, cinema, the demiurge

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Introduction

Cosmological and religious symbols are widely present in modern popular culture, particularly in cinema. In the conditions of secularization, religious images, ideas, and plots do not disappear but are transformed. Often, cosmological and religious symbols are present in works of art in an implicit, hidden form. One such work is the object of this research.

This article aims to reveal cosmological and religious symbols in the 2019 film *Alita: Battle Angel*, directed by Robert Anthony Rodriguez, a remake of the manga film *Battle Angel Alita* by Yukito Kishiro in the form of a cyberpunk action film.

There is little scientific research that would be relevant to this film. First, there is a study (a short survey) examining the use of certain robotic technologies in medical rehabilitation. These technologies are similar to those shown in *Alita: Battle Angel* (Murphy, 2019). There is a second study (a conference paper) that reviews a technical aspect of the film, namely the computer graphic features the film employs (Stomakhin et al., 2019). At the moment, there are no studies aimed at analyzing this film from a religious standpoint.

Among the scientific studies devoted to identifying cosmological and religious symbols in cinema, the following are worth mentioning. They characterize specific methodological approaches to this problem. Thus, Faiza Hirji, in his study, analyzes Islam as it is represented in the national Indian cinema that is produced by Bollywood. The author states that Islam is often associated with violence, terrorism, and intercultural misunderstanding (Hirji 2008). Anton Karl Kozlovic takes a similar approach when analyzing “sacred cinema” in Hollywood products. It focuses on the following three categories in popular films: 1) holy plotlines; 2) divine symbolism; 3) sacred subtexts, including the Christ figure. The author concludes that the use of such means in cinema is useful for the religious education of young people (Kozlovic, 2007). In his study of the influence of gnostic ideas on modern cinema, Fryderyk Kwiatkowski considers three films: *Dark City*, *The Matrix* trilogy, and *The Truman Show*. It demonstrates the gnostic origins of certain strategies used in these films to demonize the world’s creators (Kwiatkowski, 2018).

Another approach to studying cosmological and religious symbols in cinematography is to focus on the director’s style. Here, we can talk about finding an answer to the question: How this particular director uses religious symbols in his work? Thus, Pavel Nosachev analyzes the creative achievements of the American director Kenneth Anger. First, the author analyzes and systematizes the director’s work and then investigates its religious basis. The author examines three Kenneth Anger films in detail (*Inauguration of the Pleasure Dome*, *Invocation Of My Demon Brother*, and *Lucifer Rising*) and, based on these examples, claims that Allister Crowley’s ideas influenced Anger’s work. Nosachev also hypothesizes that Kenneth Anger deconstructed Crowley’s thoughts, going back to their Christian origins, and unconsciously reproduced Christian aesthetics (Nosachev, 2021b).

Silvia Angeli explores the work of the famous Italian director Marco Bellocchio through his 1971 film, *Nel nome del padre*. The author analyses the presence in the film of elements of a particular religious tradition: in this case, Catholicism. In her opinion, the film presents a rethinking of Scriptures episodes, such as the Last Supper, Deposition, the Passions and Catholic rituals (masses, burials, communions). Angeli also discovers direct references to the Scriptures through direct quotes and Christian (mainly Catholic) symbols. She emphasizes the importance of religion to the director, despite his use of irony and satire, and considers his possible motivation for such an especially ambivalent attitude (Angeli, 2018).

Richard Walsh demonstrates another possible approach. He explores, through several films, how certain religious figures are represented in cinematography (in particular, the figure

of St. Paul). Here, there is a concentration on the characters of the film. Thus, he notes that typical films about the Apostle Paul, including television and church productions, represent Paul according to a certain pattern: 1) a spectacularly conceived Acts, 2) his martyrdom, 3) hagiography, and 4) biopic film structure (Walsh, 2019).

We consider all of the methodological approaches used to research cosmological and religious symbols in cinematography legitimate and useful. They all help us to fulfill certain research tasks. However, for this study, we consider it necessary to use a different method. First, we do not consider trends in the use of cosmological and religious symbols in cinema in general (or the cinema of a particular country/period of time, etc.) but focus on one film, *Alita: Battle Angel*. Second, we do not consider the features of the style of the film director (Robert Anthony Rodriguez) and his possible psychological motivations for his creative decisions. We are not looking for answers to the question: Why did the director do it this way and not otherwise? or What features of the director's personality influenced his art? or What did he want to say with one or the other symbol? or Did he consciously use this symbol or unconsciously?, etc. All these questions are beyond the scope of our study. Third, we try to consider cosmological and religious symbols in the film as they are, rather than look for answers to how they got there. We systematize the cosmological and religious symbols present in the film and determine which religious tradition they belong to. The working hypothesis of this study is the presence of symbols of the early Christian tradition in the film *Alita: Battle Angel*.

In the process of analyzing the symbols, we have relied on Rudenko and Liashenko's methodology (Rudenko & Liashenko, 2020).

The film's plot is set in a post-apocalyptic future, 2563, three hundred years after the war with Mars known as The Fall. Events take place in Iron City, a huge city that sits beneath the flying city of Zalem. Once, there were many such flying cities, but only one remained after the war.

Dr. Dyson Ido finds the remains of a cyborg girl at the Zalem dump and takes them to his clinic. There he gives her the cyber-body of his daughter, who has died at the hands of a criminal. Since the girl found does not remember her name, Ido gives her his daughter's name, Alita. The former wife of Ido, Dr. Chiren, disapproves of this. Once recovered, Alita goes out into town and meets a guy named Hugo and they fall in love with each other over time. Hugo shows Alita the city's main features and then teaches her to play a game called Motorball (a racing sport played by cyborg gladiators). While playing the game, Alita shows remarkable power. One night she follows Dr. Ido because she thinks he is a mysterious cyborg killer. However, it turns out that he is a Hunter-Warrior, a licensed bounty hunter. It should be noted that firearms are prohibited in Iron City, so all Hunter-Warrior use exclusively cold weapons. Firearms are possessed only by Centurions – robots that perform the function of keeping order.

At one point, Alita and Dr. Ido are ambushed. During the fight, Alita kills two cyborg criminals and damages their leader named Grewishka, who escapes. During the fight, the main character recalls a fight on the moon in which she once participated. Ido explains that her heart is a piece of lost ancient technology, a source of energy and of great power, designed to work in a much stronger body. Hugo leads Alita outside the city to where a downed Martian ship lies in the lake. Alita dives into the water, gets on board, and finds a body she thinks is meant for her. She asks Ido to connect her head to this body, but he refuses, at first.

Meanwhile, Vector, the organizer of the Motorball competition, orders Grewishka to kill Alita and bring her body to him. At the same time, Alita goes to the Zalem police station and

gets a Hunter-Warrior license. She tries to convince the Hunters of the Kansas Bar to fight Grewishka. But Grewishka's patron saint, who lives in Zalem, has removed him from the list of criminals. The Hunters make fun of Alita. She fights and defeats them. Dr. Ido comes to the bar to pick Alita up. At that moment, Grewishka appears. He challenges Alita. They fight in the dungeon. During the fight, he destroys Alita's body. She is left without the use of her legs, but she pushes her only hand into his eye. Grewishka runs away, and Ido is forced to connect Alita to a new, significantly stronger body. Following an order from a man from Zalem named Nova, Vector prompts Hugo to bring the girl to the Motorball competition, where he plans to kill her. However, Alita defeats all her opponents and becomes the crowd's favorite. One of the Hunter-Warriors, Zapan, accuses Hugo of killing cyborgs, and he organizes a hunt for him. When Alita finds out, she escapes from the arena and searches for Hugo. She finds him, but Zapan has already caught him. Zapan states that he or Alita should kill Hugo as a criminal. The girl takes the wounded Hugo to the Hunter-Warrior temple, where she must kill him. Later, Ido transplants Hugo's head onto a cyborg body. He tells Alita that he once lived with Dr. Chiren and was born in Zalem but had to go down to Iron City. That was the only way he could save his daughter, who was ill. He talks of someone in the heavenly city of Nova, and Alita understands that she has to kill this person. She goes to the temple, where she kills the guards and finds Vector. Grewishka is once again attacked and Alita kills him by cutting him in half. Nova takes possession of Vector's body and talks to the girl through him. Returning to Dr. Ido, she learns that Hugo has decided to climb up a tube from the Iron City to get to the flying city of Zalem. Alita finds Hugo and tells him about a trap on his way. However, it is too late. A rotating blade comes down the tube and kills Hugo. Sometime later, Alita returns to the Motorball competition, where she becomes a champion. She fights for the right to climb to Zalem. Nova is watching this from the heavenly city. At this point, the film ends.

In this study, we ask and try to answer whether there are religious symbols in the film *Alita: Battle Angel* and, if there are, what these symbols are.

Cosmological symbols

Zalem is a city of gods; Iron City is a city of people. The film's events occur in Iron City, a large post-apocalyptic city. Above Iron City is another city, Zalem, which hangs in the sky thanks to advanced technology. According to the film's plot, there were many such cities once, but only one survived the war. The products of the factories and farms are lifted from Iron City to Zalem by special tubes, while in the opposite direction, the garbage of Zalem is poured into the dump situated at the centre of Iron City. It is symbolic that the film's actions begin precisely at the landfill.

The people of Iron City cannot go up to Zalem: "Nobody from down here ever goes up. It's a rule that's never broken," says Dr. Ido. However, people from Zalem can get down to Iron City: Dr. Ido, for example. It later transpires that there is a way to get up to Zalem; winning a Motorball challenge entitles the champion to do so.

Two of the characters in the film, Hugo and Dr. Chiren, are desperate to get to Zalem. Dr. Chiren says to her ex-husband, "I am going to get back to Zalem somehow. I will claw my way there with my bare hands if I have to." At the same time, others, such as Dr. Ido and Vector, have no such aspirations and want to stay in Iron City. It is worth noting the different motivations of these latter two characters. In a conversation with Hugo, Vector says, "I'd rather rule in hell than serve in heaven. We'd be at the bottom of the food chain up there, but down here we can live like kings." This is an almost accurate quote from the

epic poem *Paradise Lost* by the 17th-century English poet John Milton, in which Satan says: “Better to reign in Hell than serve in Heaven” (PL 1.263). However, Vector is one of Satan’s incarnations in the film; see below. The other character who does not aspire to reach the upper world, Dr. Ido, was born in Zalem but was expelled to the lower world, and he enjoys helping people and cyborgs in his clinic.

Iron City suggests Babylon as presented in the Bible (Genesis 11:1-9). In particular, the multilingualism of Iron City underpins such symbolism. “Why are there so many languages?” asks Alita. “After the big war I told you about, only Zalem was left... and any survivors from all over the world came here. Everybody down here works for Zalem,” answers Dr Ido. In the Jewish-Christian perception, the inhabitants of Babylon are characterized by pride and a rebellious character. They sought (unsuccessfully) equality with God (an episode of the Tower of Babel). In Christian texts, Babylon (the city of men) is often opposed to Jerusalem (the city of God) and is associated with abominations and immorality (Bigalke, 2011). At the film’s end, Hugo tries to get to the heavenly city and become a resident, but Nova prevents this (analogy with the Tower of Babel). However, this was achieved using a more brutal method than mixing languages.

Iron City is not a good place. “It is a harsh world. The strong prey on the weak down here,” says Hugo at one point. Ido says almost the same thing: “Do not trust anyone. People do terrible things to each other here.” Grewishka shares a similar view: “Iron City is no place for innocents.” Interestingly, for groups of early Gnostic Christians, our world was similarly a place to be saved from (Lohr, 2011).

However, it should be noted that Iron City is not the worst place in the world of film construction. Thus, during a fight in the Kansas Bar, Grewishka punches the floor and jumps down a few dozen meters, probably into an abandoned sewer, while saying to Alita: “Come to my world. Welcome to the underworld. My world. From here, there are worlds above worlds (...) going farther up than you can imagine. And the trash of each one flows down to the one below till it all ends up here.” So, if you draw a parallel with the Christian elements of world-building, then Zalem is heaven, Iron City is the earthly world, and the sewers are the analogue of hell.

Religious symbols

Alita is Jesus Christ in the Christian and Gnostic interpretations. She is the film’s main character and has features that allow her to be identified with Christ of the early Christian and, especially, Gnostic tradition. Below we will look at these features in more detail. Before starting our consideration, it is worth mentioning the important methodological work of Kozlovich, which is devoted to the structural characteristics of the figure of Christ in cinema (Kozlovich, 2004, 2007). The author of this study notes that the Christ figure is widely present in modern cinema: for example, in such films as *Braveheart*, *The Matrix*, *Blade Runner*, *Superman: The Movie*, *Hannibal*, and others. Kozlovich identifies 25 structural characteristics of the Christ figure, which, in his opinion, are inherent in the cinematographic Christ. We consider these characteristics too broad, but in certain circumstances, they may be useful in identifying Christian symbols in cinema. Thus, not in every film where the Christ figure is present can one distinguish “12 associates” (No.7 in the classification of characteristics): that is, 12 close friends of the protagonist who can be associated with the 12 apostles.

In our opinion, the symbolism of the number 12 in the religious history of mankind is much broader than the purely Christian context. Also controversial is item No.8, “the holy age,” which states how a hero begins his adventures when he reaches the mystical age of 30.

Here, we can talk about the universal archetypes of the middle-age crisis, which encompass a broader context. Thus, the mythological figure of Christ follows these archetypes rather than introduces them. Item No.10, “a sexually identified woman,” is also not mandatory in films where the Christ figure is present. In addition, there are movies in which the Christ figure is a woman. Paragraph No.11, which refers to baptism rites, we consider quite legitimate, as well as No.12, “a decisive death and resurrection,” No 17, “A cruciform pose,” and No 18, “across associations.” We cannot agree with No.23, “blue eyes,” as a mandatory attribute of the cinematic Christ. Blue eyes can represent, for example, the romantic nature of a hero. Note that Ido has blue eyes, but they cannot be matched with the Christ figure. In addition, we believe blue eyes are an attribute of an actor rather than a hero (of course, directors choose actors for certain roles, but it is unlikely that the colour of the eyes is the main criterion in the choice). We agree with Kozlovich that the actor Mel Gibson playing Braveheart has the distinctive features of Christ (he sacrifices his life for the freedom of his country). But Mel Gibson in *What Women Want* has the same blue eyes as in *Braveheart*, but his character by no means represents the image of Christ. As for the last point, “J.C. initials and Christ references,” it is primarily concerned with literary works, although they are relevant in some cinematographic works (Kozlovich, 2004). Here, we have tried to identify commonalities between *Alita* and Christ.

First, let us consider the problem of the main character’s body as presented in the film. *Alita* falls to the landfill from Zalem and is found by Dr. Ido, who connects her to the mechanical body that was intended for his sick daughter. *Alita* then finds her real, cybernetic body on a wrecked Martian spaceship which is lying in a semi-flooded state in a lake. It should be noted that this cybernetic body has not been constructed using Zalem technologies but by using more advanced Martian technologies. To recover this cybernetic body, Ido must dive into the lake. This scene may be a direct reference to the biblical symbolism of baptism. Christ accepts such baptism before beginning his earthly ministry: “And Christ, when he was baptized, went up straightway from the water: and lo, the heavens were opened before him, and he saw the Spirit of God descending as a dove, and coming upon him” (Matthew 3:16). Later, in a conversation with Nicodemus, Christ declares baptism is a prerequisite for entering the kingdom of God: “Jesus answered, Verily, verily, I say unto thee, Except one be born of water and the Spirit, he cannot enter the kingdom of God!” (John 3:5). In early Christianity, baptism gained significance as the main rite of entry into the faith and as a sign of the unity of the church (Gagnon, 2011). It is also the case that the rite of baptism is important in modern Christianity; it symbolizes the second birth.

Second, before Dr. Ido combines the main character with her real body, *Alita*, in the battle with Grewishka in the dungeon, loses her cyborg body. The apparent parallel is the death and then the resurrection of Christ. It is worth recalling that the idea of a bodily resurrection was a very important religious provision (Schmidt, 2011). After the resurrection, according to the Christian tradition, the body of Christ had unusual powers. Thus, when the disciples were hiding behind closed doors, Jesus “came and stood in their midst” (John 20:19, 26). While Cleopas and his friend recognized him, “he vanished out of their sight” (Luke 24:31). With the new body, Jesus could change his image of his own accord (Mark 16:12; Luke 24:16; John 20:14). The properties of *Alita*’s new, real body are similar. “It is the adaptive technology of the berserker body. The shell is reconfiguring to her subconscious image of herself. I have never seen anything like it,” says Dr. Ido. By merging with her true body, *Alita* destroys the antagonists Vector and Grewishka. Thus, Christ, after death and resurrection, receives his perfect body, and *Alita*, after the destruction of her ordinary body, receives her real and more perfect body.

Third, with Alita's love for Hugo, a love line is present in the film, but it is not about a habitual passion or romantic crush between young people. Love is what makes an Alita cyborg human. Immediately after the kiss that takes place between them, Alita asks Hugo: "Does it bother you (...) that I am not completely human?" "You are the most human person I have ever met," he replies. For these characters, love is, above all, a sacrifice. Alita is ready to give her heart to the object of her love, Hugo. When she learns about his dream of collecting money to get to Zalem, she says to him: "I'd give you whatever I have. I'd give you my heart. Take it." At the same time, she takes her heart out of her cybernetic body and offers it to him. He refuses such a sacrifice and says, "Do not just do things for people. No matter how good you think they are, or how deserving they are." When Zapan injures Hugo, Alita is willing to save him even at the cost of her own life: "I'd give him my life if I could."

According to the Christian faith, love is one of the most important commandments: "A new commandment I give unto you, that ye love one other; even as I have loved you, that ye also love one another" (John 13:34). Christ speaks especially of love combined with self-sacrifice: "This is my commandment, that ye love one another, even as I have loved you. Greater love hath no man than this, that a man lay down his life for his friends" (John 15:12-13). Alita, to the last, tries to save her lover. "Thank you (...) for saving me," she tells Hugo before she dies. Thus, according to the Christian myth, as Christ's self-sacrifice saves those he loves, so Alita tries to save Hugo through her self-sacrifice.

Fourth, the relationship between Alita and Dr. Ido should be considered. Immediately after her rebirth in Iron City, the Alita is merged with the body intended for Dr. Ido's daughter. We can say that he finds himself in the role of her father from the very beginning. It is he who gives her a name when she asks him, "While I am learning names, do you have one for me?" "Alita," he replies. Interestingly, the girl immediately likes the name: "It is a nice name. I love it. Can I keep it? At least until I can remember my real name?"

However, we cannot say that everything was fine in their relationship from the beginning. After learning about the night murders of women, Alita initially suspects the doctor of these crimes. She even watches him to see if her suspicions are true. Even after Alita is sure that Ido is not a criminal but, on the contrary, is a Hunter-Warrior, their relationship is far from perfect: "I am not your daughter. I do not know what I am," she says to him. Later, she wants Ido to combine her with a new, more perfect body. He refuses to do this, motivated by the thought of the danger she might face: "You are not just a warrior, Alita. You are a URM Berserker, the most advanced cyborg weapon ever created. And that is exactly why I will never unite you with this body." Contrary to the doctor's wishes, Alita becomes a Hunter-Warrior. But at the end of the film, after mingling with her real body, she says to Ido: "Thank you, Father."

So, the following can be said. During the film, Alita's relationship with Ido follows a difficult path, from one of hostility and non-recognition to reconciliation and the recognition of the doctor as a father; from "I am not your daughter" to "Thank you, Father."

Alita's relationship with Dr. Chiren, the mother figure) is similar. Initially, Dr. Chiren does not see Alita and helps her enemies (Nova, Vector and Grewishka), but then she helps Alita save Hugo. We believe that Alita's relationship with the family and her father and Christ with the earthly family and the Father may be compared. Christ also had a misunderstanding with his earthly family. So, when Mary appeals to Jesus at Cana of Galilee to solve the problem of the lack of wine at the wedding, although he answers her: "Woman, what have I to do with thee? Mine hour is not yet come" (John 2:4), he still solves the problem. In general, the disciples of Christ turned out to be closer than his family. When the disciples,

during a sermon, told him that his relatives had come to him, he replied: “Who is my mother and my brethren?” And looking round on them that sat round about him, he saith, ‘Behold, my mother and my brethren!’” (Mark 3:33-34). Even the last words of Christ on the cross (in contradictory versions of different evangelists) show reflect the aspects discussed above, those of disunity, alienation from God, his Father, and his reconciliation with Him: “And about the ninth hour, Jesus cried out with a loud voice, saying, ‘Eli, Eli, lama sabachthani?’, that is, ‘My God, my God, why hast thou forsaken me?’” (Matthew 27:46; also Mark 15:34) and “And Jesus, crying with a loud voice, said, ‘Father, into thy hands I commend my spirit’: and having said this, he gave up the ghost” (Luke 23:46). In this case, we do not investigate the historical veracity or falsity of these words. We believe that these two mythologems perfectly illustrate the aspects of Jesus’ alienation from God and his reconciliation with him.

We believe it is possible to draw an analogy in the relationship of Alita with her parent/family and the relationship of Christ with God/his family. Such a scheme, first a conflict and then a solution to the conflict between the hero with his father/parents, is a fairly common plot in literature and cinema (we can mention, for example, the classic Star Wars trilogy (Taliaferro & Beck, 2015), where a similar plot was used). Perhaps this plot originates from religious archetypes, and modern mass culture has adopted it. However, this question is beyond the scope of this study.

Fifth, let us discuss the sword used by Alita. It immediately caught her attention as soon as she saw Zapan using it. Zapan spoke of himself as: “Keeper of the legendary Damascus Blade. Honed to the monomolecular edge. It slices armor like butter. Forged before The Fall by the lost arts of URM metallurgy.” Later, during a bar fight, Alita says to him, “You do not deserve such a weapon.” Finally, during her bar fight with Zapan, she takes the sword from him, and she uses it in subsequent battles. It is worth noting she uses the sword to destroy Vector and Grewishka.

In the New Testament, the sword is one of Christ’s symbolic attributes. He says in one sermon: “Think not that I came to send peace on earth: I came not to send peace, but a sword” (Matthew 10:34). In the visions of the apostle John, Christ also has a sword: “And he had in his right hand seven stars, and out of his mouth proceeded a sharp two-edged sword: and his countenance was as the sun shineth in his strength” (Revelation 1:16; also 2:12; 19:15). It should be noted that as early as the first centuries of Christianity, the general tendency was to interpret the sword metaphorically, and it was not interpreted as a symbol of violence (Croy, 2019).

Nova is a gnostic demiurge. The main antagonist in the film *Alita: Battle Angel* is Nova, “the watcher behind the eyes” as Dr. Ido says. We know that he lives in Zalem and controls all evil forces from there (see below for more about other evil forces). It is Nova who expels Ido’s family, including his sick daughter, to Iron City. In one of her memories, Alita recalls an episode of her training and her instructor saying about Nova: “He is the dragon that must be slain.”

Alita remembers trying to get to Zalem to destroy her main enemy. Broadly speaking, the biblical myth of the fight against the dragon speaks of the problem of the existence of evil in the world (Miller, 2019). The bible usually associates the devil with the dragon: “And there was war in heaven: Michael and his angels (going forth) to war with the dragon; and the dragon warred and his angels” (Revelation 12:7). Accordingly, the dragon acts as a representation of evil. In some places, the bible uses the image of Yahweh as a dragon-like creature that pours fire from its mouth and smoke from its nostrils (Kim & Trimm, 2014). Note that among the Gnostics, the demiurge was identified with the Old Testament Yahweh (see below).

Nova can enter into the consciousness of cyborgs equipped with a special chip (a telepresence chip) and speak to them (he does this through Grewishka and Vector). The

devil acts similarly during the Last Supper: “And after the sop, then entered Satan into him. Jesus, therefore, saith unto him, ‘What thou doest, do quickly’” (John 13:27; also Luke 22:3). Interestingly, the characters whose consciousness Nova enters are the main representations of the forces of evil in their worlds (Vector in Iron City, Grewishka in the underworld, which is located under Iron City, as discussed above). It is Nova that manages these characters. He says to the main character through Vector: “Remember. I see everything.” Hence, Nova is an analogue of the demiurge (precisely in the early Christian-diagnostic sense of the term). It should be noted that among the early Christian thinkers, now commonly referred to as Gnostics, the idea of distinguishing the highest and transcendent God on the one hand and the lord of this world, the demiurge, on the other was widespread (Lohr, 2011). At the same time, some early Christians identified the demiurge with God, the creator of the world, as described in the Old Testament (Dunderberg, 2011).

So, Nova is the evil lord of the world who prevents people from getting out of prison (leaving Iron City). This demiurge can be associated with the dragon, the devil, or Yahweh in the Gnostic interpretation.

Cultural impact

When discussing the cultural impact of the movie *Alita: Battle Angel*, we must take into consideration two aspects of said impact. First is the formation of a certain fan community that perceives ideas presented in the movie and cosplays the characters during certain entertainment events, such as fan festivals like Comic Con.

The second aspect is as follows. According to Pavel Nosachev: “The problematics of Gnosticism, its imagery, mythologemes, symbols have entered into the life of modern man” (Nosachev, 2021a: 297). We believe that the film *Alita: Battle Angel* confirms this fact. The gnostic elements are simultaneously mixed into the film with the Christian ones. To illustrate this thesis, it is worth using the Gnostic trope in Nosachev’s terminology. He believes that: “In its content, the Gnostic trail is an adaptation to the modern popular culture of several representations of ancient Gnosticism, namely: 1) our world is a prison created for human torment; 2) the evil creator of this world is a demiurge; 3) the Gnostic can solve the deceptive nature of reality; 4) gnosis is a kind of extra-rational experience that reveals to the Gnostic the truth” (Nosachev, 2021a: 298). Accordingly, we have established that the world in which the film’s events take place can be equated with prison and, at least in part, this relates to human suffering. It corresponds to the first element of the Gnostic trail. Nova, the main antagonist of the film, although not the creator of this imperfect world but its lord, has all the features of a Gnostic demiurge. This is in accordance with the second element. The main character, Alita, gradually solves the deceptive nature of reality (this happens through recollection). This corresponds to the third and fourth elements.

It should be noted that in this case, the Gnostic trope is not limited just to artistic culture, but it impacts society as a whole (for further reading about the impact of culture on politics, see Omelchenko (2021); Pavlova (2018)). Thus, in the film, a societal pessimistic worldview is shaped based on the Gnostic trope.

Conclusions

Alita: Battle Angel contains the Gnostic trope and facilitates the formation of a corresponding worldview of society. The cosmological symbols present in the movie also correspond to the Gnostic understanding of the world.

We have also established the presence in the film of symbols that bring the main character, Alita, close to the figure of Christ.

First, there is the symbolism of baptism when Alita receives her true body. She dives into the water in the process of gaining a body. This scene references the baptism ritual described in the bible. Christ also went through this ritual.

Second, she sacrifices her earthly body for a future resurrection with perfect corporeality. Christ, after death and resurrection, receives a perfect body, and Alita, after the destruction of her ordinary body, receives a real and more perfect body.

Third, there is love and the willingness to sacrifice for the sake of that love. Like Christ, for Alita, love is, above all, a sacrifice. Just as Christ sacrifices himself for those he loves, so Alita is willing to give her own heart for the object of her love; her father.

Fourth, there is the father-child relationship. In her relationship with Dr. Ido, Alita follows a difficult path, from hostility and non-recognition toward her father to reconciliation and recognition of him. The relationship of Christ with his earthly family and God, his Father, has similar features. Even his last words on the cross (and the two contradictory versions in the bible) show the aspects discussed above: disunity, alienation with God, the father, and reconciliation with Him.

Fifth, there is the symbolism of the sword. In the New Testament, the sword is one of the symbolic attributes of Christ. Similarly, Alita has a sword with which she fights evil.

Thus, it may be said that *Alita: Battle Angel* contains many hidden religious symbols, although it is classified as a cyberpunk action, adventure, family, and science fiction film. Perhaps, this use of religious images in popular culture reflects the expectations of modern audiences.

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Prospects of Philosophy of Education for the Concept of Responsible Citizenship in the 21st Century

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Since time immemorial, many philosophical systems and schools of thought have viewed the intellectual nurturing of active, mentally, and spiritually developed individuals as their primary tasks. Accordingly, the authors of this article set the goal of elaborating some of the interconnected (philosophical and pedagogical) notions embedded in employing a problem-based teaching methodology as a guiding tool for the implementation of a nationwide educational reform aimed at supplying a fresh alternative to more perennial and didactic modes of instruction in need of serious review. The latter, in our opinion, proves to be extremely counterproductive to the genuinely Socratic method at the heart of the European and global educational spirit and practice. In contrast to predominantly mechanical accumulation and transmission prevalent in Post-Soviet teaching methodology, inquiry-based education is suggested as an efficient cumulative approach necessary to achieve a beneficial functional dialectic allowing students to combine guided instruction with self-actualization as active members of a modern, sustainable society. When properly executed, problem-based learning is able to closely mimic real-life scenarios of issues arising in the process of civic engagement by cultivating an active knowledge acquisition attitude among the general public. Equipped with an efficacious know-what and know-how, such social actors are able to pursue civic virtues by coming up with ways to resolve social issues having acquired a broad educational skill set while fostering the constantly evolving personal and professional learning competencies.

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As the Ukrainian educational system enters a critically important era, ever more swiftly plotting its course towards a European pedagogical paradigm, a paramount role should be assigned to the efforts of reorganizing and reforming of our educational establishments, from kindergartens to Ph.D. programs. Consequently, our educators on all levels require a clear, structured vision of the philosophy that will inspire, underpin and guide this successful impetus away from the ineffective and ideology-laden remnants of the post-Soviet system and towards embracing globally recognized values and educational principles at the heart of progressive responsible citizenship. At the same time, the authors wish to caution that in pursuing this path, our educational system (if we aim to raise and improve the scope and quality of civic engagement) cannot simply change one set of overarching markers for another but must undertake an incremental approach to building up the general level of democratic, political and social awareness and adroitness.

Keywords: philosophy of education, inquiry-based learning, critical thinking, responsible citizenship, social development

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Introduction

Without a doubt, pedagogy and philosophy are equally preoccupied with nurturing a well-balanced (intellectually and emotionally) fulfilled human being, directing their respective efforts (though at times by taking different routes) to the formation of our spiritual and mental world. While shaping the commonly inherited cultural background, philosophically inspired pedagogy equips us with the necessary knowledge, tools, and strategies to harmonize and improve our general societal prosperity and cooperation. Still, the question arises, i.e., precisely how and on what basis does such an organic combination of practical teaching approaches and techniques come into a fruitful synthesis with the overarching philosophy guiding its development and enhancement, and what function does it perform concerning civic duties and virtues, as well as how exactly does it change in historical perspective over time adapting to the mores, ethos and dominant political and socio-economic coordinates of the prevalent *Zeitgeist*? A brief glance at the history of both subjects, viz. the history of philosophy coupled with a review of the prominent pedagogical movements and schools, gives grounds for the conclusion that a majority of the outstanding educators were usually famous philosophers and, vice versa, virtually every great philosopher, as a rule, necessarily complemented a grandiose vision of their philosophical system with ethics, basing it on a doctrine of morality, whereby the latter was oftentimes in direct correlation with a particular theory of education.

In studying the works of Thales and Democritus, Socrates and Plato, Aristotle and Parmenides, we come across a clear trend that later came to characterize the philosophical outlook of their numerous successors, namely concern with exploring and furthering the individual's cognitive capacities in search of the ultimate truth as well as to working out in a more practical vein how such discoveries can benefit a particular community while bringing a rational balance, prosperity, and cohesion to society at large. Thus, it is easy to see that the ethical views of these thinkers are as much in the realm of pure theoretical pedagogy as they inform things of a more practical nature, having been directly concerned with the fate of man, his education and upbringing, expressed categorically and systematized following the philosophical predilections and sociocultural milieu of their day (Siegel, 2020).

Hence, on closer inspection, it becomes evident that our Western philosophical tradition, with its rise marked by the unprecedented level of cultural and concomitant intellectual ascent during the Hellenic period, developed philosophical views of education that were embedded in the broader metaphysical, epistemological, ethical, and political theories of the aforementioned ancient Greek thinkers. In particular, the introduction by Socrates of his “Maieutic method” of dialectical questioning laid the foundation for a profound tradition in which reasoning and the search for an intellectual basis relied on to justify beliefs, judgments, and actions was (and remains) a fundamental pillar of Western educational thought and teaching philosophy. Working out the answers and searching for a systematic methodology eventually gave rise to the view that education should encourage in all of us, to the greatest extent possible, the pursuit of a life of rational thought, discourse, and action. This view of the central place of reason in educational theory and practice has been shared by most of the major figures in the history of philosophy of education, regardless of the otherwise substantial differences in their (at times diametrically opposite) philosophical views. Therefore, Plato endorsed the view that a fundamental task of education is helping students to value and be guided in all our endeavors (individual or public) by reason, which for him involved valuing wisdom above pleasure, honor, and other baser appetites and pursuits. Accordingly, In the *Republic*, he set out a vision of education in which different groups of students would receive varying sorts of education, depending on their abilities, interests, and stations in life. Many see this utopian vision as a precursor of what has come to be called educational sorting (Curren, 2007: 17-18).

In a similar vein, many centuries later, John Dewey argued that education should be tailored to the individual capacities and talents of a particular learner while, at the same time, rejecting Plato’s hierarchical sorting of students into socially-relevant task-based categories. In its present state, the aforementioned pedagogical philosophy of inquiry-based learning originated in the 1960s as part of the discovery learning movement. From the very beginning, its proponents positioned it as an alternative to the more conservative forms of teaching (i.e., direct instruction and rote training), which relied primarily on memorization and reproduction of knowledge from established sources of canonical expertise and wisdom. Much inspired by the critical reevaluation of the scientific enterprise and method by Imre Lakatos, Thomas Kuhn, and Karl Popper, constructivist educational philosophy dates back to the works of such renowned figures as John Dewey, Jean Piaget, Paolo Freire, and Lev Vygotsky. Following the fruitful development of the constructivist ideology, Joseph Schwab encouraged learners to form and indulge in their personal academic preferences, criticized undergraduate education as a compendium of ineffective, intellectually stagnant ready-made approaches, argued against outmoded scholarly rhetoric and modes of instruction, urging students to extend their academic interests beyond the walls of their respective educational institutions and into the public forum. Beginning in the early 1970s, Schwab’s demarcation of inquiry-based pursuits into three distinct levels was formalized by Marshall Herron. He developed the Herron Scale to assess the amount and level of inquiry-based and problem-solving engagement within a particular laboratory setting and/or exercise (Cam, 2020). Subsequently, following a renewed interest in the tangible benefits of constructivist educational philosophy applicable to the goals of a wider social education agenda, the field of alternative pedagogics has witnessed a proliferation of assisted exploratory knowledge acquisition methodologies.

The Rational Underpinnings of the Responsible Citizenship Theory

In recent times, a growing number of authors have applied the language of successful educational philosophy to civic life by referring to collectively achieved innovation as a direct result of social learning. Due to the fact societies are swiftly growing in their complexity and organizational intricacy, those trying to deal with this multi-faceted phenomenon must learn a good deal about the content of the problems they are examining in order to arrive at successful solution strategies. In particular, environmental philosophy and climate change problems are prime examples of the multi-layered complexity civic activists grapple with guided by the shared agenda and wisdom of overcoming impending ecological crises. No less philosophically problematic and daunting are the questions of how people of different class, racial and ethnic backgrounds arrive at a synergistic social organization, managing to live and work together towards preventing and eliminating natural catastrophes and societal ills. Indeed, once people become involved in such crucial issues as the environment, educating our youth, or raising the general well-being and healthcare level, the interactive process of coming to grips with these matters creates the so-called hidden learning communities. In particular, many community groups are filled with autodidactic members who have acquired significant teaching expertise by investing their intellectual resources into raising their own research techniques and knowledge acquisition capacities.

Consequently, much of the learning that transpires in community groups like these is problem-centered and mission-oriented. While individuals may become intrinsically interested in particular aspects of a given social issue and pursue effective resolution strategies beyond what is needed to arrive at a successful, satisfactory solution, from a philosophical perspective, the search for knowledge is drastically pertinent to specific community needs (Gamson, 1997: 10-11). The problems themselves, complex and multi-faceted as they may appear, are equally puzzling if we try to account for their multidisciplinary nature. Specifically, as such, they cannot typically be solved by a single approach or a unified organizational (or governmental) decree prescribed from above but instead have to factor in the role of technology, rapidly evolving nascent trends in a global economy with its concomitant educational qualifications and shifting requirements, as well as to account for the legislative sphere of a particular educational philosophy implementation.

As well have seen, the process of incorporating a particular social pedagogic platform is a necessarily diverse set of individuals and organizations uniting under a single banner all social groups and categories: young and old, middle-class and poor, experts and non-experts, men and women, gay and straight, white and non-white, immigrant and citizen, urban and rural people. Consequently, all these disparate individual and collective social actors are assumed to have certain strengths and capacities, personal and social assets. It is, furthermore, presupposed that if society as a whole is engaged in a civic project, each of its mereological components has something of value to contribute to the realization of the desired social status quo. In such a society, relationships among individuals and organizations are collaborative, which means that groups that may not be accustomed to collaborating eventually work out the necessary means of arriving at mutually beneficial outcomes. Often, these cooperative networks are unstable, with ample opportunities for discord, whereby disparity is negated by engaging in civic partnership and coalition-building. Another major key to the success of these collaborative enterprises is the necessity of dialogue – a trait frequently found in descriptions of socially cohesive individuals who show high levels of

social commitment. An equally crucial point to consider is the matter of how exactly do our educational institutions: primary and secondary schools, colleges, and universities relate to the issue of raising the general bar of the educational landscape not only for its students but educators as well (Schultz, 2016: 3). Accordingly, much of what the authors have outlined up to this point has to do with areas outside the purview of higher education and is left to the transformative initiative of grassroots organizations, private social, religious and educational organizations, local self-government groups and enthusiast communities, labor unions, as well as spontaneous private business initiatives. In fact, experience shows that we rarely find a genuinely proactive stance towards framing and exercising the underlying educational philosophy demonstrated by specialized technical and/or vocational schools, colleges and universities, as pedagogical institutions are predominantly engaged in following their national or regionally demarcated regulatory scripts and curriculums.

Undoubtedly, many among the Western academic and philosophical communities who hold and express similar views about the decline of democracy and community, as well as those who are more optimistic about the vitality of the philosophical foundations fueling the progress and development of cultured, educated civic life, are faculty members in leading universities. Even less visible are the large numbers of individual faculty members and administrators in colleges and universities who, as the intellectual and moral lifeblood of our centers of learning, ought to take a firmer stance and be more involved in the project of social education and life of their communities, either personally or through informing and directing their students' social activity, often fail to impart the necessary philosophical framework and pedagogical tools necessitated for enlightened social maturity. As Francisco Uribe aptly puts it – the key issue is that the relic of a Rawlsian liberal citizen is a schematic ghost of a long-bygone analog era. Hence, Rawls's brand of civic reasonableness may have worked wonders in a pre-internet world, where the main problem was to agree on a framework of justice and what constitutes a responsible public stance everyone could broadly support regardless of espousing diverging privately held convictions. Accordingly, the price one had to pay in the pre-Internet era for securing a stable social and institutional setup that safeguarded civic and political liberty was the paramount goal, even if achieving it meant keeping our deeply held beliefs out of politics and rational civic discourse (Uribe, 2021).

Not so in our present-day hyper-connected reality, where even if one goes to great lengths in one's effort to be socially reasonable, presenting a thought-through, logical position, there is still a significant risk of being trampled by vociferous herds attempting to reshape the social landscape according to their own cultural pet peeves and skewed political agenda. Thus, all attempts at a Habermasian type rational communicative consensus would quickly be overwhelmed by a floodgate of various media platforms, social justice crusaders with their half-baked hyper-sensitive slogan-like debate tactics. Simply put, when it comes to presenting a firmly argued stance, the novel ICT reality seems to paradoxically harbor an implicit deep-seated disdain for all things rational and deliberative.

Thus, we are witnessing a major trend whereby in the public discussion, there is a growing number of people keeping their deeply held beliefs private (oftentimes, for fear of judgment) while tolerating those of others as a reflection of the irrational, disproportionate, and deeply flawed public discourse status quo. Indeed, in recent years the tables have turned so dramatically that asking people to be reasonable, as paradoxically as it may sound, may prove to be entirely unreasonable (Howell & Brossard, 2021). Moreover, if exercising one personal intellectual biases based on an antiquated rational individual model cannot be substantiated and is not viable in a present-day global village, what are the alternatives

to a fair public deliberative forum? The authors believe that due to the intricate and fast-paced nature of global societal transformation, answering this question is no easy task, and would at present reserve themselves to pointing out just a few cornerstone prerequisites for fashioning and maintaining the broad, philosophical remarks of the project of responsible citizenry. In particular, drawing on the Western pragmatist intellectual tradition, represented primarily by the works of Charles Sanders Peirce and William James, we maintain that to divorce the concept of civic responsibility and reasonableness from its inadequate Rawlsian direction exercised on a purely conceptual level, any attempt at rational educational philosophy needs to actively strive towards raising the bar for public discourse guidelines by emphasizing the need for sustained logical argumentation, intellectual flexibility and autonomy. Accordingly, the authors are in agreement that a successful recalibration of the said educational philosophy must necessarily be backed by sound inculcating a critical-thinking skill set to be achieved through introducing a structured, well-defined framework to serve as a guideline in all manner of civic pursuits and spheres of social education.

Shaping and Assessing the Aims of the Educational Impact on Responsible Citizenry Facilitation

As has been noted, it is essential to rely on a structured, well-defined metric to assess the tasks before our ongoing national educational reform. One such potential approach is the conception of Responsible Citizenship proposed by the European Commission. Based on the programmatic document of the same name, the initiative is centered around a six high-level objectives approach, with several recommendations associated with the specific functions and indicative actions corresponding to each objective and are appropriately identified for implementation at either the general EU or member state level. Hence, the suggested Framework of Science Education for Responsible Citizenship provides a powerful tool-kit for concrete steps and programs called upon to bring about systemic, synergistic, and sustainable benefits for a collective, nationwide impact. To have the proper effect, they require a unified vision and a shared sense of accountability, responsibility, and innovation by all of society's stakeholders. This includes primary and secondary schools as well as further and higher educational institutions, families, teachers, and students, autonomous knowledge-gaining enterprises, and business, public and civil society organizations. The initiative, likewise, involves all members of the European Union, at local, regional, national and E.U. level, acting together in a concerted, cohesive and integrated way (European Commission, 2015).

Given the multi-faceted nature of the objectives and recommendations, it is strongly recommended that the European Commission brings together key actors from within itself to initiate and facilitate a participatory consultation and dialogue process across the E.U. regarding documenting the proposed actions and how they should be implemented with concrete educational environments. In particular, one of the key responsibilities of the European Commission is to utilize the data gathered in the report to build and enhance national-level as well as foster communal and regional synergies and cooperation across portfolios in order to lead to tangible, sustainable results in educating diversely composed categories of the citizenry. Collaboration and networking between the different communities across the E.U. can equally provide important opportunities to enrich the lives of European citizens through sustained, concentrated social education programs. Finally, the European Commission should also strive to implement a comprehensive dissemination program, combining workshops, leaflets, awareness events, audio, video, film, community theater,

and other formats geared towards engaging citizens in the understanding of philosophical issues involved in and appreciation of the scientific and other aspects of their shared social dimension. In addition, the initiative urges a framing of an accompanying public communications strategy developed to refine and reinforce the crux of the comprehensive social education message presented in the policy paper. At the same time, the educational policy analysis undertaken in the European Commission's Report "Science Education for Responsible Citizenship" demonstrates not only the pragmatic dimension of the need for educational transformation based on science education (matching the job market demands, etc.) but also asserts the potential of (science) education in the context of providing learners with real tools for active citizenship, inclusion in the processes of civilizational progress in terms of innovation by helping them to become real participants of socio-economic and sociocultural transformation processes in our Industry 4.0 age

As these developments quicken pace, there is a much greater appreciation of the necessity to involve an entire pool of human resources and talent, placing new demands on our governments, educational institutions, businesses, and civil organizations to meet the evolving needs of the ever-shifting nature of society and the dynamic developments of the 21st-century workplace. Of equal importance is the situation of the much-depleted pool of existing resources at the heart of all social development: energy, environment, food, water, housing, communication, social cohesion, and culture. To meet these scientific and technological challenges, and in accordance with the formulated philosophy of sustainable development, the European Union has adopted a strategy based on three key components: smart growth (fostering knowledge, innovation, education, and digital society), sustainable growth (making our production more resource efficient while boosting our competitiveness) and inclusive growth (raising participation in the labor market, the acquisition of skills and the fight against poverty). It is important to note that our success in meeting these objectives is linked to the ability of our societies to educate smart, creative, and entrepreneurial individuals with the necessary confidence and capability to think autonomously and critically, engage in lifelong learning projects, as well as the ability to generate new knowledge, social and technological innovation while being able to utilize and adapt to technological change (European Commission, 2015). Becoming a successful reality requires significant input from all our citizens who are properly taught how to exercise their competencies and confidence, engaging in various active citizenship initiatives.

The Modern Synthesis of Public Policy and Educational Philosophy

Regardless of the specific factors at play when engaging in civic education, its prominent persons are always involved in a learning/ mutually enriching process between teachers and their students. While the former appears mainly as a carrier of socially relevant knowledge, beneficial and acceptable attitudes, experience, and culture, the latter must put this acquired knowledge into practice by seeking the harmonization and enhancement of social relations and capital. It should be noted that when perceived through the prism of social relations, such a knowledge exchange is not a one-sided transaction but equally affects the intellectual capital dialectic of any society, transforming its spiritual world, outlook, and culture. This crux of perennial educational wisdom, which came down to us from the times of Socrates and his deliberative educational philosophy, is what still undergirds the foundation of Western teaching philosophy and methodology. Viewed through the societal prism, the modern educational philosophy is geared towards the intellectual nurturing and upbringing

of the younger generation, which our educators are called upon to equip and facilitate with a proactive, democratic learning environment that transcends the classroom and is deeply embedded within the fabric of our shared communal and national ways of cooperation and development (Zainuddin, 2017). As was previously argued, this calls for a clear provision that the designated process has a characteristically social character, that is, it is carried out in society at large through our commonly elected legislative and government institutions whose task is to legitimize and implement a roadmap for a structured program of a nationwide educational philosophy while at the same time working towards concrete ways to achieve such an ambitious vision of a wholesale educational reform from the ground up.

It is important to note that when assessed on a purely philosophical plane, regardless of the individual forms this phenomenon may take, having to instantiate itself (partially or fully) through a particular historical type of society, culture, and/or subculture, in essence, only society as a unified body civic and politic comprised of numerous developmental projects and vectors, in its democratic collective aspiration may determine the orientation, priorities and values, purpose and way of its educational setup and makeup. Finally, there is the question of the role of critical thinking in education. We have already suggested that all courses, whether in primary, secondary, or tertiary education, need to be taught in such a way as to encourage critical thinking in those subjects. Indeed, this opinion is so common in such areas as the social sciences as to be fairly uncontroversial. What I would add, however, is that critical thinking should be added to the curriculum as an independent course. Without a separate course that teaches the generic aspects of critical thinking, it will be difficult for teachers in particular disciplines to convey to their students why critical thinking is essential. It cannot be sufficiently emphasized, however, that there is nothing in the practice of critical thinking that does not already exist in some form or other in the practice of philosophy, even if there is an enormous amount in philosophy that does not bear a direct relation to critical thinking (Philips, 2010). Hence, it is the professed belief of the authors of this article that the best way to involve students in the pressing needs of modern society is to do away with the more traditional, academic philosophy of the university, engage in narrative, experimental and interactive philosophy that emphasizes dialogue, deliberation, and the strengthening of judgment, critical thinking faculties among students and citizens alike all of which fruitfully benefits the various modes of communal discourse and *Lebenswelt*.

Conclusions

In our closing statements, we believe it is essential to reiterate the broader productive features of implementing a systematic approach to inquiry-based education throughout the entire educational system in Ukraine. Moreover, we are convinced that when properly employed, the potential of a well-defined nationwide educational agenda can lead to remarkable gains in the teaching process both domestically and worldwide. By bringing class activity in line with the demands of modern interactive education, teachers who follow the previously outlined postulates on imparting knowledge through discovery are bound to achieve a significant increase in the quantitative and qualitative characteristics of building up of critical, problem-based potential coupled with other autonomous-inquiry skills among their student body. The authors are, therefore, convinced that the road to the development of a person-centered philosophy of civic engagement is closely tied to facilitating a shared, communal learning environment through a structured, incrementally implemented educational agenda that can be genuinely conducive to a guaranteed acquisition of a flexible learning tool set, enabling students to take advantage of the latest learning approaches

through an updated, student-friendly methodology and technological innovation. When perceived as a socially grounded approach, the crux of the responsible citizenship philosophy provides ample productive application, not just in purely academic settings. Still, it bears remarkable societal gains since our knowledge is always socially directed and mediated. As such, it allows educators to enrich their curriculum with positive, socially-relevant themes, empowering students to engage and take action by tackling topics such as global warming, economic instability, and raising and improving healthcare and living standards.

Viewed as facilitators of a stimulating learning environment, modern-day educators employing inquiry-based methodology can positively impact the teaching practice by instilling a sense of responsibility and ownership in their students. Such changes are becoming especially relevant in our globalized society and education system, where teachers (if they wish to continue to be effective) are becoming increasingly challenged with the need to transform autocratic instruction stereotypes by combining the essential with the progressive. Naturally, if the aforementioned enterprise is to be in any way relevant to the aims of such a progressive philosophy of education it should be supported by a well-defined, structured base that is currently been made a major focus of our national educational philosophy. What seems especially pressing in terms of an intricate analysis is tracing the precise way an inquiry-based paradigm ties into the need to produce a new type of educator expected to democratize the learning process, balancing the needs of an open investigative mode of knowledge acquisition with the demands of more conventional academic approaches and requirements still holding sway over the mainstream national pedagogic philosophy, theory, and practices.

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Intercultural Dialog as a Necessity in the Modern World – Conceptualization and Development Perspectives

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The contemporary globalized world requires joint actions of representatives of different cultures and nationalities. Intercultural dialogue has become an indispensable element of technological and economic development. The prevailing paradigm of West-centrism is changing, which will manifest itself primarily in the emergence of new non-Western powers. Through the selfish imposition of its own patterns and values on the whole world, the West did not consider other players who were growing in strength, who today strive to emphasize their own presence in the international arena, relying on their uniqueness and cultural and religious distinctiveness. Therefore, the authors of this article attempt to explain the ongoing processes of changing the system of relations between various civilizations. They also seek to outline vectors according to which intercultural relations will develop. Indeed, finding effective solutions in this area is significant, and this article is a starting point for further academic and social debate.

Keywords: intercultural dialogue, West-centrism, occidentalism, international relations, socio-cultural differences.

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Introduction

In 1959, Edward Hall, in his work *The Silent Language*, presented a famous thesis that man is a cultural being, and throughout his life, whether he likes it or not, he is subject to socialization processes resulting from the norms and values characteristic for a specific cultural circle. This thought was very hard to accept, especially for the so-called “Westerners,” because it directly alluded to the existence of cultural differentiation of society (Hall, 1979). The concept of cultural division is part of Shmuel N. Eisenstadt’s idea of the “Axial Age” in human history. According to this theory, this epoch falls on the 1st millennium BC, when there was a significant transformation and redefinition of basic ideas about the world, man and transcendence, and on this basis, their institutional base was formed. These were irreversible changes that influenced the future shape of great civilizations and the history of all humanity (Eisenstadt, 2003). This institutionalization also initiated a dynamic process of reforming societies’ internal structure and their external relations. Moreover, the principles of the coexistence of representatives of many cultures and the historical history that took place simultaneously, constituting parallels and creating the human historical process, were established. This time is also the beginning of the differences between great civilizations, which in the 6th century AD joined the Muslim civilization (Evans & Levinson, 2009).

The concept of the Great Divergence is also present in the literature thanks to Kenneth Pomeranz, who presents a different context of the existence of this concept and gives it a different semantic meaning. He focused primarily on the economic development of West and East Asia. According to Pomeranz, after 1800, in this respect, a progressive process of distancing oneself can be noticed because before that, there were no significant differences in economic development, taking into account, for comparison, the developed regions of China and Great Britain. Until the 18th century, the economic development of the world was similar. This tendency was violated by the effects of the Enlightenment modernization of the West and the scientific achievements declared on this canvas. However, Pomeranz sees this process only as a hesitation in simple convergence because the end of the 20th and the beginning of the 21st century brought the contractual economic balance between the West and the East again (Pomeranz, 2000). The issue of the economy in this respect is undoubtedly rooted in a specific culture, or in other words – social mentality, which is an integral part of that culture.

Many other researchers, in addition to those mentioned above, have also attempted to clarify the issue of cultural differentiation. However, they all had a common denominator that determined their way of thinking. It is the question of West-centrism. In 2010, Niall Ferguson, in his work *Civilization. The West and the Rest* has emphatically described the way of thinking in which the West is at the center. He pointed out that the emphasis on the dominant position of Western countries results primarily from the development of technology, science, and the Weberian state model based on the rule of law, private property, and the Protestant work ethic (Ferguson, 2010).

Nevertheless, the origins of the Western-centered way of thinking can be traced back to the Enlightenment, when the unique “West Project” was launched. It was then that the narrative vector was formed, according to which the West was associated with the concept of progress that was being made through scientific achievements and a rationalized vision of the formation of a new man living in better conditions and questioning everything, trying to explain rationally, primarily through science, occurring processes and specific phenomena. The famous Cartesian *cogito ergo sum*, which formed the basis of Enlightenment thought, also shows the depth of the changes that took place in the West in the 17th century. Simply put,

this means that the rationalization of the way of existence has won the ruling dualism existing so far, based on the existence of two truths – the revealed truth resulting from Christian thought and the secular one, which was embodied in everyday reality – subjecting the monarch's authority, paying taxes, taking care of one's own family, etc. The Enlightenment abolished the theological idea of the creation of the world and, importantly, in the context of cultural differentiation, disrupted the validity of the idea of Caesaropapism, often referred to in the literature as the theory of "two swords of power" (Bartoszewski, 2010). However, it is worth bearing in mind one crucial thing – the Enlightenment project was aimed at liberating man and making him the creator of his own fate, hence such a radical break with religion and transferring it to the private sphere of every human being.

The process of rationalization and secularization of the social space in the West did not take into account one thing because the non-European world, or rather the non-Western world (the geographical location of the United States should be taken into account), was still entangled in the relationship between the state and religion. It is also irrelevant in this context whether it was one of the great monotheistic religions or beliefs in various idols of tribes inhabiting the regions of Oceania or South America. This is mainly because in the West, in addition to the official structure, there was a centralized organization of the Church. At the same time, in countries such as Buddhist or Muslim, there was no such organized structure in charge of the religious sphere, which was related to the fact that the state took control over matters of faith, having under its control the doctrinal space and the institutional sphere (Inglehart & Norris, 2006). This process of rationalizing and secularizing the West went hand in hand with a misreading and understanding of representatives of the non-Western world. This is reflected, among other things, in the colonial period, when the Christian colonial authorities imposed the Western type of thinking and functioning on the natives from the non-Western world. The result was the unprecedented destruction of cultures and social structures, the functioning of which was often based on long-standing traditions and norms prevailing in given communities. This mainly happened in the form of reforms or revolutions based on occasional ideas. What else in this context was the construction of a secular state in Turkey by Mustafa Kemal Atatürk or the reforms carried out in India under the leadership of Jawaharlal Nehru. Therefore, from these Enlightenment inspirations flows the contemporary mission of spreading freedom and democracy in the world, accepted by the Western world as a specific duty or a kind of "secular religion" (Bellah, 1967).

This Western cultural expansionism, with its axiological saturation, and selfish consideration of one's own interests today, led to the need to find new vectors of the common existence of representatives of various cultures and nationalities in the world. Samuel Huntington was right when he postulated that the importance of religion in world affairs had been diminishing for nearly three hundred years. Nevertheless, in the 17th century, after more than a hundred years of bloody religious warfare, European leaders who signed the Peace of Westphalia wanted to use it to limit the influence of religion on politics, and in the next century, Enlightenment thinkers preferred reason over faith as a source of knowledge. The certainty that science would also dethrone religion grew in the nineteenth century. As was commonly held, mankind was moving toward a new stage of rationalism, pragmatism, and secularism. Modernization and modernity seemed to undermine the sense of the existence of a religion that was considered a dark relic of the past. However, in the last decades of the twentieth century, the march towards secularism was reversed. An almost global revival of religion has begun, visible in almost all regions of the world except Western Europe (Russett et al., 2000).

The emergence of a new reality in the international arena at the end of the 20th and the beginning of the 21st century, constituted by the return of the importance of religion and culture, caused the need to find new solutions for intercultural dialogue. Therefore, the authors of this article attempt to explain some solutions of Western politics in the field of intercultural policy and international relations, as well as to present their own vectors for the development of intercultural dialogue, which is a necessary element influencing the future shape of relations between nations and cultures.

West's hypocrisy towards relations with other actors in the international arena

The prevailing opinion in the West that “all that is Western is the best” has had considerable importance in the field of international relations, especially after the end of the Cold War. The colonization at that time moved to another level, becoming a more complex process. In the last few decades, Western countries have been trying to impose on non-Western countries their model of functioning based on liberal democracy, free market, and the rule of law. However, this is often done by destabilizing once-prosperous countries. The above may be exemplified by the events in Somalia when in 1991, the dictatorial ruling Siad Barre was overthrown. However, this did not bring the assumed effects because the country plunged into complete chaos, leading to Somalia's fall from a thriving state structure. In this context, many other examples could be mentioned. Still, all these inherently destructive actions usually lead to in-depth reflection on the misreading of the needs of local people anchored in a completely different cultural and mental structure, as well as the creation of erroneous paradigms and visions of the meaning of Western patterns, which work well in London, Washington or Brussels, but will not necessarily be relevant and properly accepted in Kinshasa, Beirut or Baghdad.

This Western-centric way of thinking stems primarily from an intellectual and political narrative that reflects the postulate that “true civil society” exists only in Europe and the United States. It does not pay attention to the fact that in non-Western countries, there are other types of organizations that fulfill the fundamental mission – they fulfil social expectations in the field of, for example, health protection, education, and security. What else but not thriving state institutions are the “street and village communities” in Northeast Asia? Institutions based on the assumptions of Confucianism create a specific model of a civil society striving to cooperate with the authorities (Ding, 2008). The vectors of the promotion of democratic principles by Western states can be drawn similarly. Western norms and values are imposed and they are shaped and developed in completely different socio-cultural conditions from those prevailing in countries outside the Western circle. Such attempts are losing ground already at the stage of creating the concept of incorporation and merging of two completely different systems. This is mainly due to the lack of taking into account the primary factor – the culture of another country, which is a generalization of such concepts as tradition, history, values, norms, etc. The essential manifestation of Western-centrism is the assumption that “all people are the same” and strive for the same, and cultural differences then boil down to a discussion of differences in appearance, different ways of dressing, or love of different ways of expressing art.

In this context, it is also important that the imposition of the Western model of democracy on countries, e.g., African or Asian countries, is almost immediately associated with failure because in these countries the socio-cultural conditions imply situations where the state is not, as it should be, much more important in the structure of power be in a democratic system,

and the local community, clan, or ethnic or religious group (Oduro, 2021). These processes in non-Western countries can be exemplified by elections which have a completely different meaning in Western countries and in the country where they are held. In the West, it is often erroneously euphoric that elections in African or Asian countries are a manifestation of this “great democracy,” then in the country of their immediate implementation. In that case, spheres of influence are usually divided, adding to this loud election slogan falling within the scope of a democratic narrative accepted in the West. And it is similar in Western countries as well when democracy is only associated with voting in elections. Elections constitute a chessboard of the political game, sometimes even worse than in non-Western countries.

It would seem that the socio-cultural differences between the West and non-Western countries in terms of understanding democracy, civil society, and the state could be much greater, as it results from the narrative created in the West. However, it is worth taking a closer look at the processes taking place in Western democratic countries, where part of the society treats the concept of individual freedom differently. In contrast, others remain quite indifferent in this context. A nation-state governed by liberal democracy is only a certain theoretical model that can only be implemented in a few cases because the situation is completely different in reality. Thus, imposing Western patterns on other countries, without first of all considering their culture and social structure, is the wrong way to emphasize only the Western-centered point of view. It is worth looking at India, which presents itself as “the greatest democracy in the world” (Dębicki, 2008). Such a picture is also naively perceived by Western democracies, ignoring India’s caste system, which is completely different from democratic values and principles.

The few examples presented above perfectly prove the hypocrisy of the West, based on a Western-centered view of the world. Today, taking into account every other aspect of the life of an ordinary person in the West, we will not see in it a broad reference to the achievements of other cultures and nations. When studying at school, we pay attention only to Western writers because it will rarely happen that the school curriculum would include, for example, Hafiz, a classic of Persian poetry, or Cao Xueqin, an outstanding Chinese poet and painter. Currently, when celebrating the New Year, we do not realize that it is celebrated only as a holiday in the Western edition because 75% of the world’s societies celebrate the New Year on a different date, under a different name, and using a completely different calendar.

Over the years, a simple dependency has developed because attempts to impose Western orders, norms, values, concepts and methods on the whole world arouse the greater resistance and dissatisfaction, the higher the level reached by the countries to which the West tries to force these patterns. Today we have the consequences of this expansive policy of the West and the lack of understanding of the cultural diversity of other countries and nations. Interference within some other community creates resistance and then provokes retaliation. The climaxes were various types of terrorist attacks in Madrid, Paris, and London. We live in a multicultural world where relations between representatives of different cultures should be based on dialogue. Several models of such relations have been developed in the West: the assimilation model, the integration model, and the multiculturalism model. They all differ in the way of interaction between representatives of different cultures. Nevertheless, what should accompany each of the parties at every stage of such relations is the willingness to engage in a joint dialogue based on understanding the other party’s needs and not the monologue that Western countries often use. If the West outlines a certain democratic framework, it should follow them and not fall into the trap of its own hypocrisy.

Passion for the West or emphasizing your own uniqueness?

Apart from the era of fundamental division, another turning point in the history of mankind was the period of modernization in the 18th and 19th centuries. At that time, technological development and the Enlightenment thought already mentioned in this article, reigning primarily in the West, became the factors that allowed the West to be placed in a dominant position over other non-Western countries. The rest of the world developed essentially autonomously, apart from the rare linkages, each forming its own ethnocentric narrative, confirming its own uniqueness. However, this economic and technological leap in the West, along with the development of means of communication and the dynamic development of mutual international relations, influenced the desire of local elites to follow Western models. Thus, the concepts of partial occidentalization were born, which in a nutshell, was tantamount to the adoption of scientific and technological as well as economical as well as political patterns of the West, while maintaining own values, norms, and traditions resulting from socio-cultural conditions (Küçük & Ozselcuk, 2019).

In China, for example, there is a formula that lets Chinese doctrines be fundamental and Western teachings be used pragmatically for the benefit of the people. It is a heuristic hybrid system combining Chinese tradition and adopted Western patterns. In the 1970s, during the period of Deng Xiaoping's reforms, the Western model of the administrative state was adopted, which constituted the relationship between individual state institutions and society. It was also the result of the cultural revolution, which emphasized a truly Chinese identity based on Chinese values and traditions (Fang et al., 2008).

The above implies a simple relationship – modernization is not the same as occidentalization. It is true that modernization allows for the leveling of technological and economic conditions. Still, it does not affect the shrinking of cultural differences, which constitute a more rooted and permanent element of national identity. It is also worth emphasizing the importance of globalization in this regard. On the one hand, it unifies patterns and norms in various spheres of human functioning, such as in significant international concerns and corporations. On the other hand, the process of contact between representatives of different cultures on a mass scale often strengthens one's own diversity based on separate cultural and religious identities.

Samuel Huntington, the American researcher of international relations mentioned earlier in this article, in his famous book *The Clash of Civilizations and the Remaking of World Order*, was one of the first scientists in the world to postulate the need for the West to come to terms with long-term existence alongside other non-Western civilization. He warned against imposing their own Western norms and values on other civilizations because after the end of the Cold War and the transition of the world to a treaty with one superpower, which was the United States, the rest of the states moved to contractual opposition, seeking to weaken the power of the West (Huntington, 2011). These postulates, however, were reduced to a scientific debate and were disregarded in the implementation of the international policy of the state. The effects were much more deplorable, as the attacks on the World Trade Center in 2001, and the subsequent escalation of tensions over cultural differences, were nothing other than what Samuel Huntington warned against.

In this context, it is also vital that Western politicians and scientists, despite their postulates for relations with other countries, have not attempted an in-depth analysis of the culture of civilizations other than Western over many years. According to Daniel A. Bell, an eminent expert in Asia, theories about other civilizations, especially Asian culture, are based on the historical experiences of the West because the internal dogmas that guide

representatives of other nations and cultures are ignored in this respect (Bell, 2006). This understanding of cultural and mental differences from within is the *clue* to understanding.

Manuel Castells also contributed to the development of intercultural dialogue. Paradoxically, his concept of “network society” or “network state” is extremely topical in terms of building intercultural relations. This results from the very idea contained in Castells’ work, as he indicates that in today’s globalized world, network connections are the basis for the functioning of the state (Castells, 2021). An interesting fact is that Western civilization has been getting used to the social and state network structure for several decades, while, as in East Asia, relational and network systems have been dominant for a long time. The countries there defined their identity based on the values and norms of a specific group that did not necessarily live in the designated territory. This was the basis for creating these network connections. Back then, Western civilization was strongly attached to a specific state entity. This idea of a network society is accompanied by the process of changing the “Washington model” based on the principles of the free market, the rule of law, and liberal democracy, to the “Chinese model of development”, which is a response to the contemporary challenges of a globalized world. Thus, it is apparent in the above considerations that the concept of Western domination is wearing out, and the world is entering a decidedly new stage of socio-economic development.

Conclusions

Westocentrism was based on the belief that Western civilization was universal. However, from the second half of the twentieth century, the dominance of the West began to weaken along with the progressive decolonization and gaining independence by more and more Asian and African countries. At that time, the difference between other civilizations from the Western ones was emphasized, mainly by awakening their national pride based on the uniqueness of culture, traditions, and values prevailing inside the local societies. The West, trying to maintain its dominant position, sought more and more radical measures. As mentioned above, Somalia is a perfect example of the West’s hidden struggle for its own domination in this region.

Moreover, along with the economic development of Asian countries, especially China, the United States was losing its position as a world leader. Interesting in this context is the fact that the desire to emphasize the uniqueness of Asian countries was formally reflected in the so-called 1993 Bangkok Declaration. It was then established that Asian countries have a culture different from Western ones, which also deserves to be respected and treated equally with others.

In 1998, the United Nations adopted the principle of dialogue between cultures as the basis for their peaceful cooperation. It was a turning point when people began to talk about the need to learn to communicate with representatives of other cultures and nationalities. Certainly, the West felt that, without a peaceful dialogue, both technological and economic development would not be possible. Therefore, another principle of cooperation based on sustainable development was adopted because the modern world has become a multipolar and multicultural structure, where there will be no forward movement without mutual communication. This sustainable development is reflected primarily in investments by Asian countries, especially China, in the development of science and technology. This allows us to catch up with the West and overtake it in many areas.

Due to this state of affairs, Westerners face the need to cooperate with the new non-Western powers. Westerners will have to accept and take into account different cultural norms and

values. This also applies to religion because, referring again to Samuel Huntington, religion in the 21st century will play an important role in the division into “own” and “others”, and in order not to make further mistakes that led to the terrorist attacks in Madrid and Paris, or Brussels, Westerners will have to adopt a specific model of dialogue with representatives of other religions. Dialogue between people of different cultures will be a necessity, and the West will have to change the tone of its narrative and talk to others equally without imposing its role models as the best. In this context, integration is understood as an intermediate between assimilation and multiculturalism. This paradigm emphasizes the balance between the cohesion of society as a whole and its internal differentiation: between what we share with others and what distinguishes us from others. It is assumed that integration with society and particular identities do not have to be mutually opposing. It is a kind of mosaic where a whole is made of different elements.

Nevertheless, intercultural dialogue is burdened with a yoke of failure if one side does not treat the other as equal. Therefore, this equality in relations with others should constitute a fundamental principle of intercultural relations. Moreover, the dialogue will only be possible when the parties establish a common narrative line encompassing the social, political, historical, and, above all, cultural context. Perhaps the most important point is that the dialogue is to take place without imposing patterns and ideals on another party because it should be conducted in a decidedly objective manner. Finally, learning to dialogue should involve changing one’s attitudes and beliefs that lead to profound change and reflection in relation to one’s culture.

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Section Three

COSMOS AND HISTORY

Richard Swinburne's Probabilistic Epistemology

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The purpose of this article is related to the study of the ideas of the modern Christian theologian Richard Swinburne; in addition, attention is drawn to the fundamentals of the new theistic cosmology proposed by the theologian. The author mainly focused on studying the most general provisions of the Christian religious-theological paradigm developed by Swinburne. The author was also interested in identifying and interpreting the problem of a convincing justification of faith. The main result of the study of the problem was the conclusion that the idea of a new theistic cosmology developed by the theologian is carried out by Richard Swinburne from the standpoint of probabilism, based on the selection of inductive evidence for the existence of God; all this should ultimately demonstrate the proper likelihood of the central position of the religious worldview – “God exists.”

Keywords: God, theology, science, miracle

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Introduction

Formulation of the problem. Solving the problem of the correlation between science and religion and the specifics of their interaction has always been and remains important for Christian theology, regardless of its confessional orientation and coloring. It acquires

special significance and sound in modern socio-cultural conditions, in a situation of accelerated scientific and technological progress development. The theologians' approach to the achievements of modern science is now taking on new forms, and the theological dialogue with the natural science worldview, an attempt to give a proper assessment of modern scientific discoveries, is becoming, according to theologian Alistair E. McGrath, "fascinating and worthy intellectual activity" (Christian Theology, 2016: 8). All these efforts of theologians are ultimately aimed at theoretically substantiating the idea of the compatibility of theology with natural science and, ultimately, to prove that truth is no longer a matter of dispute between faith and knowledge of the world. On the other hand, trying to give a fundamental explanation of the nature of reality at the microcosm level, even academic researchers sometimes, at the same time, do not completely abandon attempts to simultaneously find channels of God's interaction with the surrounding world, to identify the direction of his actions on the matter and energy of the Universe, and the use of religious terminology to interpret the consequences of modern scientific research of the world directly confirms what has been said. That is, individual ideological structures that generalize the content of theoretical knowledge, which is the subject of the development of science at its current historical stage, clearly reveal a veiled (and sometimes direct) connection with the supernatural.

Presenting main material

Researchers, who by the will of fate are included in the dialogue of faith and reason, can be divided into two camps. On the one hand, these are those who are engaged in certain branches of science and are at the forefront of scientific research in their field of knowledge, but, at the same time, ideological and philosophical assessments of the current state of affairs are sometimes superficial. On the other hand, there are scientists whose vocation is the formal and logical correctness of reasoning and further ideological generalizations, although the data of academic science they use are sometimes secondary and taken from popular scientific sources. Richard Swinburne is an Oxford professor, an Anglican theologian from the United Kingdom who converted to Orthodoxy in 1990, whose theological concept and method are the subject of this article. Swinburne's philosophical and theological project is ambitious and significant – to combine the truths of faith and the achievements of modern science under the auspices of a religious worldview.

This combination is carried out by the author from the point of view of probabilism, is based on the selection of inductive proofs of the existence of God and ultimately must demonstrate the proper probability of the central position of the religious worldview – "God exists." A detailed definition of the essential and necessary characteristics of the concept of "probabilism" is contained in Anthony Flue's Philosophical Dictionary: "The doctrine particularly associated with skepticism, to the effect that no definite knowledge can be attained: opinions and actions should therefore be guided by probability" (Dictionary of Philosophy, 1979: 268). Richard Swinburne, in the preface to the book "The Existence of God" separately and specifically draws the reader's attention to the fact that the logical valence of conclusions about God of this kind is connected with the concept of probability and cannot have a reliably true character, as in deductive conclusions: "I shall, however, argue that, although reason can reach a fairly well-justified conclusion about the existence of God, it can reach only a probable conclusion, not an indubitable one. For this reason, there is abundant room for faith in the practice of religion, and my trilogy on the philosophy of theism ends with a volume on Faith and Reason" (Swinburne, 2004: 2). Hence, the essence of

Richard Swinburne's probabilistic epistemology is that the validity of a belief is determined by its probability and the probability of other beliefs associated with it.

Probabilistic epistemology is, according to the author, the living and functioning soul of his own "hypothesis of theism," which is designed to explain the origin of the Universe, the reasons for its appearance, the existence and functioning of its constantly operating laws, its focus on the appearance of animals and the appearance of man. The natural theology, which the author builds by drawing on new scientific data, is presented in his numerous works, but most of all in his trilogy – "The coherence of theism," "The Existence of God" and "Faith and Reason" (Swinburne, 1993, 2004, 2005).

Traditionally, theologians distinguish between the essence of God, what he is (his "being"), on the one hand, and his effective aspect, that is, what he does (his "becoming"). The author, taking into account the traditions of the existing distinction, in addition to inductive proofs of the existence of God, deduces his main attributes by deduction, interprets the relationship "God-the world," considers the essence of God's providential concern for the world together with ethics, gives his vision of theodicy. The construction of a new theistic cosmology is carried out mainly within the framework and with the help of Swinburne's apologetics, which takes into account various inductive proofs of the existence of God, and gives them a proper assessment; therefore, here we are dealing with a special kind of faith, namely, "fides quaerens intellectum," that is, faith that seeks understanding (Anselm of Canterbury).

The main principle through which the epic of evolution from the Big Bang to the appearance of man is studied and on the basis of which the researcher selects and interprets empirical material is the principle of simplicity. In addition, the simplicity of the author is far from a primitive simplification, a lapidary, or even an economical explanation of the world order, but the ultimate perfection of the explanation. Here is how the author argues his own opinion in the book *The Existence of God*: "If we assume that all our empirical data are among the things to be explained, then our background knowledge will be mere tautological evidence; and so our concern will be with the intrinsic probability of theism, and that (...) is basically a matter of how simple a hypothesis it is" (Swinburne, 2004: 93).

The author wonders whether the "hypothesis of theism" – God exists, is so simple as to be verified and ultimately true. In addition, he tries to proceed from the fact of the existence of the Universe and formulate a fateful question for his new theology – whether the existence of the Universe is an initial given, a simple phenomenon that exists by itself, regardless of anything, and also, in addition to this, whether there is an independent explanation and understanding of this fact. Having tried to give his own version of theism proper intellectual respectability and significance, the author tries to get to the very origins of knowledge and find out the essence of such a function of science as an explanation; he also examines and classifies various types of explanation. However, the logical and methodological procedure of interpretation by Swinburne himself, being rational in nature, is nevertheless theological in content, purpose and, of course, the results obtained – this is the initial setting and the maximum justification for the existence of God. This justification, therefore, must certainly lead the reader through the chains of conclusions from the fact of the existence of the Universe to the statement that God really exists.

However, in the search for grounds for their own arguments, anyone can find themselves in a situation with an infinite regression of explanations. And for any system of knowledge, there must be a series of inexplicable explanatory, that is, those unconditional truths, thanks to which we avoid the movement of proof to Infinity. In scientific theories, where we are talking about the original nomology of the Universe, there is also a place for inexplicable

explanations; thus, the existence and functioning of the most general laws of nature is taken by scientists as a “gross fact” that does not provide for further confirmation. However, in Richard Swinburne’s theistic cosmology, the initial principle of studying the problem, arranging and analyzing the material is the existence of God. He prefers to choose between the Universe as the end point [of explanation] and God as the end point.

As can be seen, from the very beginning of the explication of the content of the hypothesis of theism, the theologian suggests taking on faith what he is finally trying to subject to the verification procedure by means of inductive apologetics. The theory of argumentation of theology, including Orthodox theology, with which the author associates himself, in this situation unfolds its provisions as follows: God in the depth of his essential dignity can be comprehended exclusively by the “eyes of faith,” but faith, in turn, gets its confirmation, to a large extent, through God. The peculiarity of the practice of such proof, as can be seen, is that the thesis about the existence of God is proved with the help of a special argument (faith), the truth of which, in turn, is justified through a statement that itself needs to be proved (God).

Such a technique in Christian apologetics takes on a complex, Scholastic-veiled form, when not several judgments are compared, but a whole system of judgments or an integral theological concept is offered to the attention. Thus, these concepts are taken by theologians as interdependent, which is quite consistent with the logic of the Christian faith. After all, the eternal and unchangeable God, theologians teach, provides man with timeless and “cross-cutting” truths, unchangeable, once and for all determined, which a person is able to understand not by limited means of the mind, but exclusively by the heart. However, this does not exclude a change in the very form of theology, its improvement on the way to understanding the content of divine Revelation. However, the content of this improvement itself is quite peculiar since its immutability is already predetermined. Consequently, any theological study of the topic always and certainly comes to what it began with.

Using the theism hypothesis, Swinburne attributes the initial probability of its truth not only to its simplicity, but also to how consistent it is with basic knowledge. According to the author, the initial data is already available knowledge or knowledge from related fields, which are used to assess the probability of any position of science without verification. In methodological terms, this allows us to explain universal systems without taking into account background knowledge and evaluate them as “tautological data.” Giving a global assessment of such a large-scale phenomenon as the existence of the Universe, Swinburne uses background knowledge as tautological data. In addition, he focuses on the order and ordering of the world, the regularities of the laws of nature, and also studies and evaluates them from the point of view of the existence of the Universe itself. The consequences that should follow from the assumption of the hypothesis accepted by the author should correspond to the facts of reality, while background knowledge is evaluated for convenience as tautological, that is, simply taken into account; all this determines the degree of probability of the accepted hypothesis. However, simplicity is crucial in calculating the latter, which in no case should be ignored or underestimated.

As already mentioned, in his philosophical and theological reflections, Swinburne proceeds from the existing existence of an ordered universe to the position of “God exists.” Fundamentally important in the theologian’s theorizing is the question of the existence of the Universe only as a simple rough fact or that the existence of the Universe can be explained in some way. Attempts to bring ontological clarity to the field of knowledge can be reduced to an exclusively physical explanation of this phenomenon and to a similar argumentation of existing explanations. However, the global explanatory idea in theistic

conceptualizations is, of course, God. In a dilemma between the Universe, as the end point of all possible interpretations, and God, as a universal explanatory idea, Swinburne prefers the latter. In his own theistic scenario of the search for the root causes of existence, Swinburne, of course, seeks to explain them from the point of view of the personality of God, to an incomparably greater extent than existing cosmological hypotheses based, according to the author, on non-spiritual causality and impersonal determination. From the existence of the transpersonal being of God, the theologian, using the idea of possible worlds, deduces his personal attributes and gives a detailed theological interpretation of the latter. The theologian puts God at the center of the Universe while emphasizing that such a simple explanation of everything is more justified than polytheistic systems or a demiurge with limited capabilities which “works” with the existing matter. It is simple and, therefore (according to the author), effective for understanding the properties of the physical world. Swinburne, following the standards equally accepted by both Western and Eastern Christianity, talks about a God who is unlimited in basic possibilities; God, in his omnipotence, instantly supports the world’s existence in time. Such existence of the world is accidental, because it has no reason to exist by itself. Still, the world around us directly and directly depends on an external causal factor – God, then God himself does not need, according to the author, any explanation, because God is a necessary being who exists by virtue of himself independently of anything else.

In the book “The coherence of theism,” the author draws readers’ attention to another important problem of theology – the extra-temporal nature of God, his specific, unlike anything else, existence and action in the historical perspective, the unity of the present, past and future: “God’s timelessness is said to consist in his existing at all moments of human time – simultaneously. Thus he is said to be simultaneously present at (and a witness of) what I did yesterday, what I am doing today, and what I will do tomorrow. But if t_1 is simultaneous with t_2 and t_2 with t_3 , then t_1 is simultaneous with t_3 . So if the instant at which God knows these things were simultaneous with both yesterday, today, and tomorrow, then these days would be simultaneous with each other. So yesterday would be the same day as today and as tomorrow – which is clearly nonsense. To avoid this awkward consequence, we would have to understand “simultaneously” in a somewhat special stretched sense. The “simultaneity” holding between God’s presence at my actions and those actions would have to differ from normal simultaneity” (Swinburne, 1993: 228). The author is sufficiently knowledgeable and fully competent in the advanced achievements of science. He freely operates with the facts of reality and gives them a proper assessment. The breadth of his scientific interest is amazing. It covers probability theory, relativity theory, quantum physics, astrophysics, chemistry, molecular and evolutionary biology, and the humanities. Being within the limits of a probabilistic approach, he uses knowledge from these fields of science to confirm the judgments of his scientized epistemology aimed at a theistic explanation of existence. Swinburne shows that the nomological structure of the Universe, expressed in its (Universe) basic laws, is a consequence of an extremely distant, in time grandiose creationist volitional act of creation of the world out of nothing. Thus, Swinburne’s “inductive theology” in the process of unfolding reasoning should, according to the author’s plan, be confirmed cumulatively and correlated with cosmological proof of the divine creation of the world out of nothing.

When one of the proofs of the theologian’s thesis of God the Creator is based on the fact of the nomological orderliness and harmony of the world, the other attracts the phenomenon of “fine-tuning” of the Universe. It is known that this concept of theoretical physics shows the basis of the world not as arbitrary, but strictly defined constants or initial parameters and

conditions of the existence of the world, the slightest change of which makes the existence of the microcosm and the macrocosm – atoms, stars, the Universe as a whole – impossible. The theologian interprets this mysterious phenomenon of the Universe not as a random formation, but from the point of view of intelligent design. The explanatory value of the criterion of simplicity is considered by the author in inseparable connection with the arguments of fine-tuning the Universe so as to ultimately prove to both his supporters and ardent ideological opponents that the Universe is specially finely tuned for the appearance of the human body by God. And such an occurrence is not a happy coincidence, but the creation of God. Thus, a large number of sources from which the theologian prefers to deduce the existence of God, a significant number of facts to which, following the tradition of probabilism, he appeals, according to Swinburne's plan, should be combined, forming a cumulative effect in the very procedure of proof. And this, which is above all hopes, should achieve the ultimate goal of the research started on the topic – changing knowledge and beliefs in the very structure of the reader's worldview.

However, the burden of proof assumed by Swinburne, in unraveling some of the ancient mysteries of existence, in establishing and interpreting the fundamental reality of the world, the deep meaning of the existence of the world, is sometimes likened to fetters that the theologian is desperately trying to break. All the powerful intellectual efforts of the thinker, aimed not so much at the truth of the fact as at the fundamental attitude of the world to its root cause, do not fully justify the author's hope, because sometimes they only wander around the initial mystery of the world, too far from reality as such. Why is the nomological structure of the world as it is and has no other structure? In this question, passionate critics of Swinburne's theorizing see the most vulnerable point of his concept (Grünbaum, 2004: 587). The fact that the author's idea was to become a strong theoretical basis for the "hypothesis of theism" and provide it with proper verification and strong backs, in fact, became a "Procrustean test" of this great plan.

All the author's excursions into these areas of academic science have caused either passionate criticism, or more balanced, sharply directed reviews, in the light of which the author is not always armed with advanced counterarguments and psychologically convincing. Among the specialists of certain branches of science, to whom Swinburne is forced to appeal, in an attempt to base his rational proposals on a larger number of facts, from time to time there are disagreements with the author in the understanding and interpretation of certain scientific provisions. It is known that the time of universal scientists has long passed, and in the era of narrow specialization of science, such a position of the theologian – to cover all the facts of reality and give the latter a proper assessment, dooms him to protracted clashes with scientific knowledge and the loss of all confidence in preaching and theology. Although if it were not for Swinburne's excessive metaphysical ambitions to build a new theistic cosmology and, accordingly, to confirm and justify it in the spirit of analytical philosophy, on the traditions of which the educated author, then the burden of proof, rashly accepted by him, could be tried to transfer to his ideological opponents. But his critics, without due respect for the requirements of the law of sufficient reason, persistently present a weak and dubious hypothesis about the spontaneous generation of the living and the further evolution of the living, up to the appearance of man, as a scientific theory.

It is unlikely that the theologian will be supported in this regard by an appeal to Bayes' theorem, on which he has high hopes. As you know, this basic theorem of probability theory allows you to calculate the probability of any event under the conditions of knowledge of other statistically related events and, based on the known fact of the event, to make up

the probability that it was caused by a certain cause. Taking into account the specifics of the material with which the theologian deals, the formula of the theorem demonstrates its convenience in that it does not require knowledge of the absolutely exact probability of events, but involves techniques and operations with values “more than” and “very high.” The consequences of calculating the a posteriori probability of theism from the initial data, according to the author, are equal to $\frac{1}{2}$. Swinburne’s supporters unanimously recognize such theoretical calculations as weighty, and the probability itself $\frac{1}{2}$ is “quite solid.” Although even without complex mathematical calculations, the practice of common sense has long shown a person that if the hypothesis of theism about the existence of a supernatural source of things (God) can correspond to the real structure of being, then its probability can be equal to $\frac{1}{2}$; in probability theory, the probability of the lion’s share of statements is equal to the probability of their refutation, which is known to specialists even without special calculations.

However, the legality of using the methodology for calculating statistical patterns in relation to specific religious concepts and establishing with its help the degree of probability of statements about the existence of God, his actions in the world, the reality of a miracle, Grace, mystery, creation, etc. is very doubtful. Because such a methodology is applied to recurring events marked by empirical similarity. The existence of God and his effectiveness as a creator are not included in the force field of statistical regularities that Bayes’ theorem takes into account, since they are unique features. The misunderstanding here arises, as can be seen, due to the fact that the concept of “probability” in its academic and scientific content, when the probability is used in the formulation of scientific laws, begins to apply to some historical events. As you know, the specifics of the latter (they conditionally include religious phenomena, miracles, unique and inimitable events) – lies in the fact that one historical event is different from another and unlike it. The formulation of the scientific law assumes the repetition of events; their regularity is tied to the frequency of the case – the more often the phenomenon under study is observed in similar conditions, the greater the probability of an assumption expressing the law. So, in such a situation, the specifics of studying historical events by a specialist historian are ignored and evaluated solely from the point of view of the laws of statistics and the possibility of repeating events, and this is nothing more than a distorted understanding of probability and illegal extrapolation of the features and principles of one cognitive practice to another.

Using an inductive approach and an argument from the “fine-tuning” of the Universe, Swinburne gradually approaches man’s problem. Through chains of reasoning, he tries to show that without God the Universe could in no way be attuned to the existence of the human body and the functioning of its consciousness. According to the author, the human body should be an instrument of knowledge and achievement of higher goals. In conscious existence, in responsibility for oneself, the world and other living beings, the theologian sees the content and essence of God’s providential plan for human freedom, its ability to bring order to their own lives, the world, and the lives of its inhabitants. Here the author is forced to touch on the age-old problem of religion and morality – the problem of existence in the world of evil. As we know, it appeared in the history of religious thought in very distant times – how did it happen that suffering and evil do not disappear before the majesty of the Supreme Justice and the omnipotence of God? Why, even with the miraculous healing of a specific injury, do the phenomena of physical defects not disappear in existence, where the laws that cause illness continue to apply? It turns out that even the miraculous cessation of the causal chains, the action of which would cause a negative coincidence, the drama of human existence and even death, does not repeal the universal law, the steadfastness of

which continues to generate tragic factors of suffering. The complexity of the age-old moral question in monotheistic religions and, to the greatest extent, in Christianity is exacerbated by the contrast between the generally benevolent divine providence and the presence of evil.

The theologian considers the problem of the existence of evil in the world traditionally – in close connection with the problem of human free will – the ability to make a free choice by man hides the potential danger of evil. But Swinburne's theodicy, if it can be defined as an attempt to theologically remove the irreconcilable contradiction between faith in the all-good God and the existence of evil in the world, the author was straightforward naturalistic, and devoid of the necessary fate of compassion. Theologian David E. Jenkins points to this age-old moral question, which later became a difficult problem for theology. "A God who uses the openness of the Universe created by him, the openness and freedom of people created in his image, the secret of his own risky and life-giving love in order to make additional causal connections to this Universe from time to time, as a result of which only due to this unpredictability certain events and trends will be carried out, would be an annoying demigod, a moral monster who contradicts himself. God is not a capricious disgusting type and not a craftsman who sometimes gets a person out of difficult situations. This would be morally unbearable, and no reference to the secrecy and exclusivity of such actions could overcome this feeling. Однако however, no matter how he interacts or communicates with the world, he cannot interfere in the course of events as an additional seemingly random historical reason." These are the views of David E. Jenkins (Jenkins, 1987: 64).

If God exists, argues Richard Swinburne, this implies his responsibility for the existence of evil in the world he allows to exist. Interpreting the existing evil as moral, arising as a result of a person's free choice, and natural, such as, for example, incurable diseases or natural disasters, the theologian, in order to soften the thesis about God's responsibility for the dark side of life, is forced to assert that God foresees such suffering. Swinburne draws attention not only to suffering in the human world, but also to evil among the higher mammals, suggesting a higher organization of living beings more vulnerable to suffering. The existence of evil, according to Swinburne, generally acquires a cognitive purpose, since it orients a person in a situation of moral choice. Thus, the theodicy completes the author's painstaking analytical work on the theoretical development and substantiation of the thesis about God the Creator and the inventor of the world, which is the core of the hypothesis of theism. According to the author's intention, the latter was intended to convincingly prove that the existence of evil, the manifestations of which a person observes and suffers in everyday life, in fact, does not contradict the assumption made in the hypothesis of theism.

The author's reasoning, for the most part, as mentioned above, takes place in line with Western analytical philosophy, where the laws and factors of the physical world are carefully analyzed. But the author of the "hypothesis of theism" pays close attention to the metaphysical side of the issue, which can enrich it incomparably more than the relatively specific (from the point of view of theology) field of data that he used earlier. The theologian's intellectual efforts are aimed at establishing a meaningful connection between his concept and the facts of reality, overcoming the cumulative stage of development, when the author qualitatively changes the evidence and turns to traditional religious reasoning. The consequence of this orientation is theology, which is based on the concrete testimonies of believers, on religious experience. The theological significance of Swinburne's theistic intellect becomes even more important when he refers to religious experiences, to miracles as an important act of faith.

The theologian is aware that the problem of the religious understanding of belief in a miracle lies in the fact that in practice, the scientist has to deal with a huge variety of

manifestations of this belief (especially when it comes to the miracles of antiquity). The complexity of the situation is aggravated by the fact that today the concept of “miracle” has lost its clarity and unambiguity and has acquired too broad and extremely arbitrary interpretations, and the word “miraculous” now has too many meanings. Therefore, in this regard, it is very important for a researcher to carry out an additional cognitive act that will precede all subsequent studies of a miracle, namely, distinguishing elements of religious consciousness from close or similar secular entities and distinguishing the concept of «miracle». Ignoring their otherness will force us to deal with the ideas of miracles that exist in the public mind, devoid of a supernatural substrate, and, therefore, there is a danger of falling into a fairly common cognitive error – *qui pro quo* (accepting one instead of the other); that is, an attempt to discover the essence of belief in a miracle will be nullified by the danger of delusion about the latter, which will constantly arise as a result of the substitution of the corresponding concepts. Therefore, at the beginning of his book “The Concept of Miracle,” the author of the book tries to clarify this important issue for theology: “There are many different senses of the English word “miracle” (and of words normally so translated into English). In this chapter, I shall distinguish these different senses, and show how they are related. I shall end by justifying my taking a particular sense of the word for subsequent philosophical analysis. I shall, in subsequent chapters, consider in detail what it means to say that, in this sense, a miracle occurred and what would be evidence that it did. My analysis of this sense should indicate the way in which claims about miracles in other senses of the word are to be analysed, and so supported or refuted” (Swinburne, 1970: 1). Further, Richard Swinburne speaks about the God-Man, who in a very distant past created this world, determined and laid the foundations of enduring laws, but does not lose touch with the world and man, interacting with the latter on a personal basis. The omnipotence of God, his unlimited acts of will, says the theologian, overcomes the necessity of natural law or temporarily suspends its action when God decides to intervene in the natural order of things to carry out his new decisions and determinations. Wishing to preserve the theological identity of his version of theism, Swinburne defines a miracle by noting God’s external causal influence on chains of events, which is not a permanent rule in God and infrequently happens because the world loses regularity, certainty, and order.

The argument that the theologian resorts to in pursuit of his apologetic goals is quite justified, since the appeal to religious experience greatly increases the likelihood of the hypothesis of theism. In addition, Richard Swinburne points out that sometimes some rational arguments for faith can be less significant than the religious experience of discovering God in one’s own heart and experiencing God. In *Faith and Reason*, he emphasizes this thesis: “The arguments considered so far purporting to show that arguments to the existence of God, and more general arguments about fundamental religious matters, will not work all proceed from general philosophical considerations. There are also arguments that are internal to the Christian religion in the sense that they argue that if the Christian religion is true, it cannot be shown to be true by rational argument from premisses reporting data available to atheists and Christian alike; or that, even if this can be shown, someone who comes to believe as a result of such argument will not have the kind of belief required for religious faith. People should come to Christian belief on this view by hearing the preaching of the Christian Gospel or reading the Bible and coming to feel “Yes, that is true”; by an inward religious experience of the presence of God making the subject aware of Christian truths” (Swinburne, 2005: 106).

In Bayes’ theorem, on which the author has high hopes, the data of religious experience are added to the numerator of the fraction $\frac{1}{2}$, which significantly increases the probability

of judging the existence of God. To increase the probative value of the data of religious experience, Swinburne puts forward the principle of trust, according to which human perceptions and religious experiences should be recognized as sufficiently significant due to the lack of reliable grounds for doubt.

Existing religious beliefs, especially when expressed in the language of theology, now seem to be expressed in the context of dialogue between theology and science. The idea, which is designed to express the main ideas of such a dialogue, presents the image of the latter in the form of a bridge. He, according to religious intellectuals, will promote mutual understanding and, at best, a mutually beneficial symbiotic relationship between theology and science on the path of a joint understanding of truth and the search for meaning in life (Peacocke, 2013: 24). At the same time and at the same time, a number of problematic issues of Christian doctrine force modern theologians to overcome very difficult apologetic difficulties, to provide convincing answers to serious theological questions. "At its best Christian theology has always sought a balance between the twin biblical truths of the divine transcendence and the divine immanence," – convinced theologians Stanley J. Grenz and Roger E. Olson (Grenz & Olson, 2010: 9), and therefore the solution of these epistemological problems by Swinburne is also in search of an equation between these related Christian truths.

Conclusions

In an environment where the Christian church is forced to balance between the stability of fundamentalism and openness to innovation, theologians' attempts to offer an unambiguous, comprehensive answer to key questions of religious worldview become an infallible indicator of their chosen theological position – from orthodox or at least pious. One such attempt, in which the spirit of his time was most fully embodied, is presented in one of the most extraordinary theological ideas of our time – the theistic system of the theologian Richard Swinburne.

The project of a new theistic cosmology, on the altar of which the theologian has placed all his extraordinary talent, extensive knowledge and intellectual intuition, is too large-scale and ambitious. Its scope is actually within reach of a particular theological school or, at least, a wide range of students and followers. Perhaps that is why the author of the hypothesis of theism failed to fully realize it. Thus, a number of powerful theoretical positions and effective ideas advocated by the author, apart from his inductive cumulation of various factual material and further generalizations of accumulated knowledge and bypassing the force field of simplicity, did not find proper justification and therefore did not justify the expected results. In addition, the author of the concept, taking on the burden of proof, was not always able to fill the gaps in understanding the theses with their own arguments and show the advantages of their position over alternative systems of worldview. Although with regard to the latter, under certain conditions, it would be appropriate to study or at least evaluate the evidence base of concepts put forward by critics of the hypothesis of theism.

In addition, the author significantly impoverishes his own concept in full without involving the theoretical resources of classical theism with its reliance on Revelation and at the same time making concessions to theism adaptive. He is inclined to the latter, probably preferring to maintain the scientific orientation of his theorizing and their intellectual respectability and significance, which requires belonging to the community of Anglo-American intellectuals. However, building his inductive apologetics on the basis of inductive proofs and operations of explanation, he practically ignores the worldview specifics of the chosen problem, which,

as we know, does not fall under any calculations and can not be understood through the establishment of statistical laws. On the one hand, all this does not correspond to truly apologetic tasks. On the other hand, it does not take into account the fact that science has an inexhaustible remnant in worldview, which it cannot overcome by its own nature. In addition, any apologetics that sometimes makes significant concessions to the inquisitive mind that seeks awareness, but not blind faith, is built on rational grounds and is therefore open to rational criticism, which in Swinburne's beliefs has become avalanche-like. In this regard, the author's insufficient attention to the canons of classical theism, whose theology traditionally cannot be other than supernatural and therefore super-rational, i.e., inaccessible to destructive criticism, is particularly inappropriate and incomprehensible.

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Towards Useful Tools for the Study of the History of Cosmology

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One of the important goals of the philosophy of cosmology is to study the meaningful historical works of Aristotle, Galileo, Copernicus, Kepler, and others. From viewpoint of the history of cosmology, these texts are important not only as examples of understandings of the universe but also because they can be considered as leading historical illustrations of original approaches to the question of scientific rationality and types of scientific controversies. Like many other classic scientific texts, they are multidimensional works. It can be distinguished many focus points which the books may be explored (history, science, philosophy, literature, and others).

In this paper, I consider the possibility of reading the texts concerning the important cosmological issues from the point of argumentative view. In this regard, the key tasks of my research are (1) to explore the central characteristics of the argumentation dimension and (2) to consider some methodological tools that will be useful for scholars studying outstanding historical books from the field of philosophy of cosmology.

Keywords: philosophy of cosmology, history of cosmology, theory of argumentation, historical and empirical approach, tools for the study of scientific controversies

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Introduction

The philosophy of cosmology seeks to discern ways of knowing the universe. In this regard, the exploration of meaningful historical texts devoted to this issue has great importance. For example, books such as Aristotle's *On the Heaven* or Galileo's *Dialogue*

on the Two Chief World Systems, Ptolemaic and Copernican¹ reflect the main trends of understanding the universe in historical contexts.

Like many other classic scientific treatises, these books are multidimensional works. We can read them from different focuses: scientific, historical, philosophical, rhetorical, literary, etc. These are just the general points from which the book may be considered. Each of them, in turn, involves several more specific points of view. For example, a scientific reading of the book could focus on physical, astronomical, mathematical, and cosmological issues. A historical exploration could take the book as a document of some epochs, events, or episodes. The philosophical focus is based on a methodology that corresponds to some instruments and methods for analyzing and evaluating historical scientific texts.

In this paper, I would like to consider the possibility of reading the texts concerning the important cosmological issues from the point of argumentative view. In this regard, the key tasks of my research are (1) to explore the key characteristics of the argumentation dimension and (2) to consider some methodological tools that will be useful for scholars studying outstanding historical books from the field of philosophy of cosmology.

What is the argumentation dimension?

To identify the preconditions of argumentative view on the reading of historical texts, I propose to focus on the epoch-making book “The Uses of Argument” by Steven Toulmin. In this work, a new approach to logic was proposed (Toulmin, 1958).

Stephen Toulmin emphasized that “a radical re-ordering of logical theory is needed in order to bring it more nearly into the line with critical practice” (Toulmin, 1958: 253; Toulmin, 2003: 234). It meant that his new logic had to work adequately in the various fields of argumentative reality. In this regard, Toulmin assumed that not only a theoretical component is relevant to the study of argumentation but also an empirical one is needed. Justifying this view, he claimed: “logic (...) may have to become less of an a priori subject than it has recently been (...) Accepting the need to begin by collecting for study the actual forms of argument current in any field, our starting point will be confessedly empirical” (Toulmin, 1958: 257; Toulmin, 2003: 236-238). In addition, it should be stressed that Stephen Toulmin connected the empirical component with the historical one.

He believed that “not only will logic have to become more empirical; it will inevitably tend to be more historical... In the natural science, for instance, men such as Kepler, Newton, Lavoisier, Darwin and Freud have transformed not only our beliefs but also our ways of arguing and our standards of relevance and proof (...) Grotius and Bentham, Euclid and Gauss, have performed the same double feat for us in other fields” (Toulmin, 1958: 257; Toulmin, 2003: 237). Here Stephen Toulmin bearded in mind that empirical database for scholars may be the history of thought in general and the history of science in particular.

Haim Perelman and Lucie Olbrechts-Tyteca, who are among the co-founder of the modern theory of argumentation supported Toulmin’s view. They claimed that their treatment, called new rhetoric, had to base on empirical observation (Perelman & Olbrechts-Tyteca, 1958).

¹ The full original title of the book Galileo published in 1632 may be translated as follows: “Dialogue by Galileo Galilei, Lincean Academician, Extraordinary Mathematician at the University of Pisa, and Philosopher and Chief Mathematician to the Most Serene Grand Duke of Tuscany; where in meetings over the course of four days one discusses the Two Chief World Systems, Ptolemaic and Copernican, proposing indeterminately the philosophical and natural reasons for the one as well as for the other side” (Finocchiaro, 2021: 39).

For understanding what is argumentation dimension it would be appropriate to give a perfect analogy: “Like Frege’s theory of logic was founded upon a descriptive analysis of mathematical reasoning, they founded their argumentation theory on a descriptive analysis of reasoning with value judgments in the fields of law, history, philosophy, and literature” (Eemeren, 2015: 5-6).

However, in the 20th-century, investigations in the field of argumentation were mainly aimed at theoretical issues and their philosophical support. Only more recent studies of distinctive argumentative patterns have been identified in argumentative discourse in the scientific, philosophical, political, educational, legal, medical, and other domains. Empiricalization has become one of the main trends of current argumentation research (Eemeren, 2015; 2017). Eemeren writes: “three major developments in the treatment of argumentation have begun to materialize that open new avenues for research. Although they differ in shape, these developments can be observed across a broad spectrum of theoretical approaches. The three developments I have in mind can be designated as empiricalization, contextualization, and formalization of the treatment of argumentation” (Eemeren, 2015: 5).

In my opinion, studying the texts by Aristotle, Galileo, Kepler, and other cosmologists from an argumentative dimension, on the one hand, reflects the process of empiricalization in modern argumentation theory. On the other hand, scholars in the field of the history of cosmology have an opportunity to improve their methodological tools by using instruments and methods from informal logic, pragma-dialectics, and other argumentative approaches.

Methodology. General Orientation

As you can see, the exploration of historical texts from the focus of the argumentative dimension could be considered an empirical project. Let us try to characterize its stages.

The first stage involves the selection of some important texts of the past, containing interesting argumentation and scientific controversies on some cosmological issues. For example, it could include the writings of Aristotle, Galileo, Copernicus, Kepler, and others.

In the second stage, scholars take attention to a precise reconstruction of the arguments involved in the select text of the past and the context in which they occur. In other words, they create a database consisting of reconstructed arguments from the selected texts. We can define arguments as a set of statements that seeks to justify a conclusion by supporting it with premises; defending it from objections; or both goals. Reconstruction means to find out all premises (expressed and unexpressed) and conclusions in the arguments consisting in the certain text. The reconstructed arguments are a true database of such an empirical project.

In the third stage, the reconstructed arguments can be explored from three argumentative tiers: logical, dialectical, and rhetorical. The logical tier focuses on the inferential structure of the reconstructed arguments. Here the key research questions could be, at least, the following.

- (RQ1) How argument is expressed and stated?
- (RQ2) What are its premises?
- (RQ3) What is its conclusion?
- (RQ4) What missing premises can be included in its reconstruction?
- (RQ5) What is the logical structure of the argument?
- (RQ6) What is its logical type (deduction, induction, analogy, abduction, etc.)?
- (RQ7) What is the structure of the reconstructed argument (serial, linked, independent, etc.)?
- (RQ8) How this structure may be pictured in a structure diagram?

The dialectical tier may be considered as a tier of argumentation, which relates to the interpretation and evaluation of a reconstructed argument with a standpoint as well as the argument's defense from possible criticism of other arguers. It can be objections, observations, counterarguments, refutations, etc. In this case, it can be proposed the following critical question.

(RQ1) What are objections, observations, counterarguments, and refutations regarding the reconstructed arguments which can be found in the history of cosmology?

(RQ2) What are objections, observations, counterarguments, and refutations regarding the reconstructed arguments we can find in the writings of modern authors?

The rhetorical tier of argumentation is devoted to analyzing the audience. It is an audience-oriented tier of argumentation, which includes arguments related to the audience's reception of the argumentation. Here the key research questions could be, at least, the following.

(RQ1) What was the reaction of contemporaries to the investigated text?

(RQ2) Did the author of the investigated text take into account the views of the contemporaries?

(RQ2) What is the rhetorical force of the reconstructed arguments?

(RQ4) What rhetorical devices did the participants in scientific controversies use?

The fourth stage is concerned with the evaluation of the reconstructed arguments, namely the assessment of their merits. Scholars suggested different criteria distinguish a good argument from a bad one. For instance, speaking of logical criteria we can talk about soundness and validity. In general, it could be expressed the following way: an argument is good if and only if it is formally valid and its premises are true. Here the key research questions could be the follows.

(RQ1) Is an argument sound?

(RQ2) Is an argument valid?

The fact that by following the validity criterion all good arguments are being reduced to deductive ones proves how strong it is. However, an argument is good not only if it is valid. We can see that some arguments which we take to be good are not sound by reflecting on examples of perfectly acceptable arguments whose premises are not all true, or whose inferential step is not deductively valid. This fact implies that we can use other criteria. For instance, informal logicians often are based on a triad of relevance, acceptability, and sufficiency (RAS criteria) as a popular set of criteria for evaluation. According to them: an argument is good if and only if its premises are acceptable, relevant to the conclusion, and sufficient to support it. Here, it can be proposed the following question.

(1) Are the premises relevant to the conclusion in the reconstructed argument?

(2) Are the premises acceptable in the reconstructed argument?

(3) Are the premises sufficient in the reconstructed argument?

(4) Do the reconstructed arguments contain fallacies?

Tools for the study of scientific controversies

In line with the central aim of the paper, I would like to present here some instruments and methods for the interpretation and evaluation of scientific controversies that we can find in historical texts on cosmology. They were explored in the writings of Maurice Finocchiaro (Finocchiaro, 1980; 1994; 2010; 2013; 2021).

His views of arguments in scientific controversies can be defined as historical and empirical. In a collection of papers and books written over a period of three decades, he presented the historical-textual and meta-argumentation approaches. Maurice Finocchiaro wrote about his

first project: “I advocated a type of empirical approaches to the study of reasoning which may be called the historical-textual or informal logic approach” (Finocchiaro, 1994: 1). Its aim is the formulation of normative and evaluative principles besides descriptive, analytical and explanatory ones” (Finocchiaro, 1994: 1).

The second project Finocchiaro presented in the following way: “I elaborated an approach to logic and argumentation theory that studies arguments in a manner characterized as pragmatic, comparative, empirical, historical, naturalist, and both normative and descriptive. It corresponds to Toulmin’s idea of an applied logic, as well as to the historical-textual approach which I have advocated previously” (Finocchiaro, 2013: 178).

Finocchiaro’s methodology is based on four principles. His position can be identified as (i) historical-textual, (ii) dialectical, (iii) interpretative, and (iv) self-referential (Eemeren et al., 2014: 389). The historical-textual principle is associated with the object of research. The scholar takes attention to a precise reconstruction of the arguments involved in the select text of the past and the context in which they occur.

The dialectical principle concerns the argumentative side of the controversies from some historical texts. Reconstructing the arguments Maurice Finocchiaro tried “to stress counterarguments, objections, criticism, evaluation, potential (and not necessarily actual) dialogue, and the clarification (rather than resolution) of differences of opinion” (Finocchiaro, 2005: 14).

The interpretative principle is related to Finocchiaro’s theoretical views on arguments in scientific controversies. He characterized the approach as interpretative because “it stresses the understanding and reconstruction of arguments (as distinct from their evaluation and criticism) to a far greater degree than is commonly the case” (Finocchiaro, 2005: 14).

The final methodological principle is self-referentiality. It points out the intention to apply the abovementioned methodological principles “not only to the analysis of the scientific controversies but also when dealing with contributions of his scholarly peers in informal logic and argumentation theory” (Eemeren et al., 2014: 389).

According to the historical-textual approach, the first step of research is the reconstruction of controversy in the texts of the past from different domains (philosophy, science, politics, jurisprudence, etc.), keeping in mind the relevant information about arguers involved in the dispute, historical context, and peculiarities of the controversy. As a result of such interpretation of the selected text, scholars can receive a database of reconstructed arguments.

The second step is the evaluation of the reconstructed arguments and the argumentative aspects of the controversy in general. What evaluation methods does Finocchiaro propose? What techniques can argumentation scholars use for determining whether a particular instance of reconstructed argument is good or bad?

As Finocchiaro (1994) stated, there are six relevant methods, namely “method of alternative conclusion, active evaluation, ad hominem argument, method of counterexample, principle of charity, and explanation of error in reasoning (...) The three most relevant methods are alternative conclusion, active evaluation, and ad hominem argument” (Finocchiaro, 1994: 11).

The method of alternative conclusion could be used to show that a conclusion of an argument does not follow from its premises because another different conclusion follows instead. The term alternative conclusion means that this conclusion and the original one conflict. Active evaluation is the procedure of testing inferential relationships among propositions within a reconstructed argument.

Ad hominem argument is not meant the present-day informal fallacy. It is meant in the 17th-century sense, “namely as reasoning where the arguer derives a conclusion not

acceptable to an opponent from premises accepted by the opponent, but not necessarily generally acceptable” (Finocchiaro, 1994: 11).

Later, Maurice Finocchiaro proposed the method of meta-argumentation based on the following principle of interpretation and evaluation: the former focus on describing the propositional structure of the reasoning under investigation and on justifying the accuracy of this description; the latter focus on criticizing the various explicitly stated propositions, their connections with each other, and their connections with other implicit propositions, and on justifying the tenability of these criticisms” (Finocchiaro, 2013: 242). This method Finocchiaro used within his meta-argumentation approach.

Conclusions

In this paper, I focus on studying the important original texts from the past where cosmological issues were considered. It is stressed that scholars can explore them from different focuses: scientific, historical, philosophical, rhetorical, literary, etc. Each of them in turn involves several more specific points of view.

It is proposed to consider the project of reading the texts concerning the important cosmological issues from the point of argumentative view. Such a project can be characterized as historical and empirical.

Currently, various types of instruments and methods for historical projects have been elaborated (Rudenko & Liashenko, 2020). In this regard, great attention in the paper is paid to the clarification, systematization, and classification of the useful argumentative tools which scholars could use to investigate the texts of the past.

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On the Purity of European Consciousness and the Limits of Being-Time in the Existential Anthropology of the Late M. Heidegger

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The issue of the European thinkers' purity of consciousness is studied from the standpoint of the later M. Heidegger (in polemic with F.J. Gonzales and T. Sheehan). The article shows that Heidegger, having embarked upon the searching for new thinking, chooses the European thinking origins and, starting from the "Contributions to Philosophy (of the Event)", he already refuses to distinguish between being and time, that is, he is looking for a third principle (thinking) for their joint grip. We believe it is no longer the being that follows from the understanding of time, but being and time from the understanding of thinking (and even thinking of being). In this new dimension of consciousness, thinking falls into the time-like phenomenology dimension, commuting with being and time. Based on the analysis of the subsequent working of Heidegger, we can conclude that thinking must go through the metaphysics path to return to its wholeness (at the origins), but already to the existential-temporal unity. Thinking, commuting with being and time, starts to bend like the light in the black hole (according to the general theory of relativity of Einstein) and split (Heidegger uses the term "the Clearing of Being"). Existential thinking is a special case of this gap. It was that new dimension of thinking that the mystics and the Eastern sages aspired to. The topos, where being is joined to time, is the ultimate (pure) thinking that has overcome ignorance or attachment to the material world. It is through this dimension we begin to understand not only what being is, but also what time is, as thinking begins to distinguish its time, it temporalizes and starts to listen to its own "breathing" or temporalization of time (Heidegger wrote about). In such dimension, thinking turns into that original topos, when all connected with being flows inherently, be it Gods, humans, or the things grasping (everyone goes the way of being). The ideas of later Heidegger suggest that thinking can appear only where the being clearly exists (and Tao in its non-manifestation). Thinking arises only in conjunction with being and a new topos (thinking of being). Thinking is the gift of the being through the clearing (interspace), the one that allows you to grasp both the being and Tao. Nevertheless, based on the later M. Heidegger, it can therefore be concluded that almost fifty years after the writing of "Being and Time", European thinkers still have not learned to think, since what awakens true thought, what should encourage us to think, and what is associated with pure thinking, has not yet awakened. It does look as if the later Heidegger was close to the idea that

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time reveals not only the being but also consciousness. In the classical dimension of thinking of being beyond the boundaries, both time and the being disappear, thereby closing the path to pure thinking (to avoid the “true”).

Keywords: consciousness, pure thinking, European thinking, logical and rational thinking, pure being, being and time, existential anthropology, M. Heidegger.

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Introduction

The European culture route to the purity of consciousness proved to be very thorny and contradictory. But in fact, the depth of culture can be measured precisely by the purity allowing you to discover in consciousness. We know about the existence of ancient high cultures (Egyptian, Iranian, Sumerian, Aramaic, etc.); however, we still have not figured out whether these cultures' pure thinking patterns were the same as those in Ancient Greece and in our time. Cultures and civilizations disappear, but thinking remains. Moreover, we constantly talk about the fact that the ancient high civilizations were destroyed since thinking of their representatives became more and more polluted, as they did in Egypt and the Sumerians, and at the origins of the Old Testament thought. For instance, did the Aryans who came to India bring the light of thinking or the pollution of war? Does the tribal war, described in the Bhagavad Gita, bring us to the inner tension of the hero's (Arjuna) thought; or is it an inevitable fact of thought pollution (although even Krishna interprets it as something that should not prevent a warrior from doing his duty)? (Edgerton, 1972) In a word, we still (even in the 21st century) face the problem of interpreting the purity of thinking or the fact that our consciousness is filled with the dirt of war. The most prominent thinkers of the 20th century sought to decipher the essence of pure thinking (for example, E. Husserl, 1983; S. Freud, 2015; M. Scheler, 1962; Sri Aurobindo, 1998; A. Badiou, 2003, 2005; etc.), but, ultimately, they failed to convince the mass society of the need to purify consciousness. As in the days of the ancient Greeks and the time of the Bhagavad Gita writing, we are standing in front of a wall of war and evil in misunderstanding, although A. Badiou leads us to the idea that a mask (correlating with an event), betrayal (correlating with loyalty), coercion of the unnameable (correlating with the power of the true) are the evil figures, and that any attempt to name the unnameable, to call the “community of people” capitalism, socialism, democracy or communism leads to catastrophic evil (Badiou, 2001). For evil (as well as good) is born at the origins of thought, where a person attempts to name something (a form of being of sociality in particular). And the named one, transferred to the masses, becomes evil, and we call it the “Idea” and the “Ideal State” (Plato), the beginning of the world (Aristotle) or communism (Marx). The events of the 20th century showed how fascism, under the guise of socialism, burst into the European consciousness, and the dirty events were committed under the name of communism. This is the nature of human consciousness, which, striving for purity, does evil; this requires considering at what stage of the way purity consciousness can be transformed into its opposite (evil).

This article is aimed at exploring Heidegger's understanding of the European consciousness purity, and to show in this context that starting from the very first works (“Being and Time” (Heidegger, 1962) through the works after the turn (see Heidegger, 1979, 1979, 1983, 1992) and ending with the last work “What is called thinking?” (Heidegger, 1968) that Heidegger's work is undergoing a profound internal transformation from fundamental ontology to

fundamental anthropology. Such a study is based on our earlier works on Heidegger (Okorokov, 2018, 2020), as well as the article on the pure consciousness of early Heidegger (primarily, “Being and Time” (Okorokov, 2022)). Similar issues in Heidegger’s work were studied by both Ukrainian: A. Bogachov (Bogachov, 2021), I. Karivets (Karivets, 2020), R. Kobets (Kobets, 2020), E. Boliaki (Boliaki, 2012), L. Gordon, and A. Wohlman (Gordon & Wohlman, 2019), M. Peters (Peters, 2019), R. Huttunen, and L. Kakkori (Huttunen & Kakkori, 2021), M. Lambert (Lambert, 2020), G. Petropoulos (Petropoulos, 2020), R. Uljée, G. Tsagdis, and F.W. Zantvoort (Uljée et al., 2020), F. Westerlund (Westerlund, 2020), E. Husserl (Husserl, 1983), M. Scheler (Scheler, 1962), S. Freud (Freud, 2015), A. Badiou (Badiou, 2005), Sri Aurobindo (Sri Aurobindo, 1998), and others.

A. Bogachov, on the one hand, points out the difficulties of the Ukrainian translation of “Being and Time”; on the other hand, he seeks support for such a translation in the work of F. Westerlund (Bogachov, 2021). I. Karivets writes that in the fundamental ontology, thinking is understood as being in tradition without tradition, and that thinking is arbitrary and spontaneous (Karivets, 2020). R. Kobets focuses on the fundamental ontological projection of thinking as a kind of science of cognition and the Dasein project (Kobets, 2020).

F. Westerlund reveals the contradiction between Heidegger’s attempt to establish Husserl’s phenomenological experience and apply a radically historicist approach to understanding thinking; that is, the boundaries of phenomenological thinking are explored through Heidegger’s existential experience (Westerlund, 2020). G. Petropoulos analyzes the complex relationship of Heidegger to Plato, where the latter is revealed as a thinker of the transitional period in the affirmation of the truth of being (Petropoulos, 2020). R. Huttunen, L. Kakkori believe that, given the fact that there are two types of thinking (calculating and meditative), Heidegger can be considered a technological essentialist, and overcoming technological thinking is very difficult (Huttunen & Kakkori, 2021); and we can agree with it, taking into account that for more than two thousand years technological thinking has been dominant in the European consciousness.

M. Lambert focused on the positions of Chad Engelland concerning the relationship between Heidegger and Kant, suggests that, despite significant transformations and changes in the work of early and later Heidegger, Kant remains a crucial interlocutor throughout his career and brings him to the border of his later thinking, that is, at different periods, Kant becomes even more important for him than his teacher Husserl, and in an attempt to surpass Kant, Heidegger tries to “jump over his own shadow,” which, according to Heidegger, is the task of any philosopher. That is why early and later Heidegger tries to distance himself from Kantian transcendental thinking (Lambert, 2020). In our opinion, the later Heidegger departed from Kantian transcendental philosophy quite seriously, as he did not find any transcendental support for European thinking, especially since the German thinker diverged from the Kantian transcendental idea of time as a form of inner feeling.

Hegel, Heidegger and Derrida, according to R. Uljée, G. Tsagdis, and F.W. Zantvoort, are the three founding figures of modern European philosophy, and three thinkers whose intertwined heritage continues to enliven fierce philosophical disputes. But it was their debates that initially shaped the philosophy of the 20th century. Heidegger criticized Hegel as the archetype and culmination of the entire Western philosophical tradition, but Derrida would also criticize Heidegger for logocentric and ontotheological motives in his thought, that is, for his hidden Hegelianism. According to Hegel, thinking itself has a history, and the central premise of the Heideggerian project is that thinking can exist only in the continuous deconstruction of its history; it means that there is a relationship between history and time,

the consciousness of time and the presence of time modalities in his writing. In other words, Heidegger suggests that thought development moves around the relationship of temporality (Dasein), the history of being and the meaning of the Event (Ereignis), among which, according to Derrida, a crucial role is played by the priority of temporality over the event (Uljée et al., 2020).

The relationship between Heidegger and Plato (and with Greek thought as a whole), essentially, the relationship between the first and last thinkers of the metaphysical era is crucial given modern critics. Many modern researchers of Heidegger's work have written on these relations, but we would like to single out the works of two remarkable critics, F.J. Gonzales (Gonzales, 2009) and T. Sheehan (Sheehan, 2015).

F.J. Gonzales and T. Sheehan have revealed that Heidegger, largely based on Plato, misinterpreted him, and it may question the entire teaching of Heidegger as the finalizer of modern European culture. As the role of Plato is significant for Heidegger as well.

However, we want to show that Heidegger's transcription of Plato is only a certain reconstruction of the Greek philosopher, an attempt to modernize him, to show that from the point of view of modern culture, he is, firstly, relevant, and, secondly, the path of his thinking anyway leads to contradictions, that is, according to Heidegger, Plato did not solve the global problems of culture and failed to smooth out the contradictions between thinking and being. In our language, Plato was only on the outskirts of understanding pure consciousness but closed its light by the world of ideas for himself (and for us).

In other words, on this matter, we are on Heidegger's side, since he tried to show inconsistent thinking not only of Plato, but of all subsequent European (metaphysical) culture, and not only in the field of fundamental ontology, but the later Heidegger in the field of fundamental (existential) anthropology (given the phenomenological influence of Husserl).

Gonzales is trying to reveal the phenomenological motives of Plato but is not such a phenomenological image of Plato just another new (not existential, as in Heidegger, but phenomenological) reconstruction of Plato. The problem remains open.

Moreover, one can say that Gonzales, regarding Socrates and Plato, falls into the same trap as Heidegger. Things he reproaches Heidegger for (inaccurate reading and speculation), he applies to them himself (see, for example, Gonzales, 2009: 289-290, 295). Gonzales has many statements, such as, "It is clear that Plato would not accept this move" (Gonzales, 2009: 295), etc.). To who is it clear, and how? Has Plato incarnated in Gonzales?

Neither Gonzales nor Sheehan, despite the fundamental analysis of Plato's ideas, have brought us closer to understanding the true essence of modern European thinking; even European classical thinking also froze on Plato's ideas, as no one could clearly express those passages that have come down to us from the pre-Socrates. So, what's happening next, are we forever stuck in the shadow of the outstanding thinker of antiquity, enchanted by his thinking?

But it is not just about how talented Plato was, but whether there are alternative ways for European culture. In our opinion, there are, because there is a path of Chinese, Indian, and Japanese cultures, but there is a path of ancient civilizations, the study of which (say, following the example of M. Eliade or Prabhupada) could shed light on the origin of our thinking. In the East, this kind of illumination sometimes was called the appearance of God (Brahman or Krishna) on Earth. Even in European culture, Jesus Christ, the Son of God, appeared in human form (and this is an element of the alternative Platonic spiritual culture). In the East, when culture comes to a standstill, new spiritual avatars appear (Buddha, Shankara, Ramanuja, Chaitanya, etc.). There has been no renewal in Europe since Plato and Christ.

So perhaps Spengler is right, and this is the decline of (old) Europe, and it needs renewal (it would be better not the way R. Girard prophesied, not a sacrificial renewal). Maybe enough bloody sacrifices that lead only to consciousness simulations (for a certain historical period), we would like psychoanalysis not to be omnipotent and the repressed consciousness to be replaced by a spiritual one. So that neither Oedipus nor the Sphinx would lead us along the path of pure consciousness, but Mo Tzu or Christ (with their universal love and humanity).

European culture desperately needs new spiritual (ancient) sources to discover a new spiritual tradition (such as Zoroastrianism for Pythagoras). Thinking, divorced from spiritual roots, produces only success (money, computers, networks, robots, etc.) or (in the classical sense) logos and metaphysics.

When it comes to the opposition of dialectics and being in Heidegger's concept, according to F.J. Gonzales, one can only say that neither Plato nor Heidegger succeeded in expressing the temporal properties of dialectics, based on the fact that dialectical thinking is still not absolute (ideal), but is always unfolded in time. In this context, it would be nice to apply the diachronic approach to language, proposed by F. de Saussure, to statements about being. In other words, all classical (modern included) European thinking considers logos (and any natural language then) as static. But such logos (and such a language) does not apply to being, according to Heidegger. However, neither Heidegger nor his critics (in particular, Gonzales and Sheehan) could see language as an event unfolding in time. And just as Heidegger was looking for an event-based approach to being in "Contributions to Philosophy (of the Event)", it was necessary to find such an approach to language. Who knows, perhaps, in this case, there would be a language capable of expressing being. Neither F.J. Gonzales nor Heidegger did not explore this possibility. Maybe in such a linguistic topos, the harshly negative language of Gonzales would be less critical of Heidegger.

Thus, many researchers of Heidegger's work are trying to understand the existential-anthropological motives of the later M. Heidegger, that is, to comprehend the transition from the fundamental ontology of the early to the existential anthropology of the later Heidegger. We strive to comprehend this transition in the context of research into the essence of the purity of modern European thinking. This idea can be expressed in another way: modern European culture is clearly on the way to a new way of thinking formation.

M. Heidegger, completing "Being and Time", faced the need for thinking through what time is, and concluded that time, in turn, must be revealed from the horizon of being. Since the fundamental way of being existence is understanding, the German philosopher was forced to consider the very possibility of such an understanding and decided to look for the purity of European consciousness, which must now (just like time) unfold from the historical horizon of the being of European culture. Thus, Heidegger made a significant turn from fundamental ontology, first to the history of being, and, ultimately, to the history of the essence and purity of European consciousness study.

However, Heidegger is one of the few European thinkers who tried to understand the complexity of this path of purification of consciousness in European culture and came to the disappointing conclusion that we, unlike the East, are still at the origins of this path. Perhaps that is why the last work of Heidegger is named symbolically – "What is called thinking?" (Heidegger, 1968).

One can reduce the study of F.J. Gonzales on Heidegger to the justification of Plato (as opposed to Nietzsche and Heidegger's misreading, who interpreted Platonian truth as unconcealed, but sometimes critically (inaccurately) assessed it as correctness). You can justify T. Sheehan's new reading of Heidegger's work, considering purely English accuracy

in comparing the terminology of Aristotle and Heidegger. T. Sheehan stated, “as regards philology and historical science (Historie), his (Heidegger) hyper-valorization of the pre-Socratics based on a heavily theorized construal of a handful of fragments is highly questionable. He himself even called into doubt the historical (historisch) correctness of his own interpretations of archaic Greek thought” (Sheehan, 2015: 254). “Professor Tezuka was quite right: when it comes to the needless confusion that dogs Heidegger’s philosophy (not only among analytical philosophers but among Heideggerians as well), much of the blame must be laid at Heidegger’s own doorstep” (Sheehan, 2015: 12).

All this is correct and true, and there are modern critics well versed in ancient texts and the etymological intricacies of Heidegger’s complex work. Although, where T. Sheehan doubts (of the vagueness of the pure origins of European thought, as if there were only fragments before Plato, and only he and Aristotle brought European thought into the system), one can object that, after all, Indian thought starts from the obscure Vedas, and the Chinese from the obscure Book of Changes, and thereunder, what should we consider the clarity of Buddha and Lao Tzu to be the origins of Indian and Chinese thought. Any understanding (system) implies tradition. Wasn’t there Bharata in India and Homer in Europe, who already implied polishing of thought?

This is not the task. No teaching can escape criticism. The task is to figure out whose idea of thinking is more correct, Plato’s or Heidegger’s. Could not Plato be mistaken in truth, goodness, thinking, and education interpretation? He could. And just as Heidegger could be wrong in interpreting Plato? But this is not the reason to judge both. Who has not erred in understanding the essence of thought? The task is rather to find an approach to thinking that would straighten out all the problems of modern European thinking (it does not matter whether we follow the path of Plato following Gonzales and Badiou or follow the path of Heidegger). Or perhaps there is a third way, and not just a way to the second dimension (as in Heidegger). This article is aimed at considering alternatives to different ways of thinking, that is, to introduce a conditional “purity of thinking,” according to the following type: the purer the thinking, the more accurately it reflects being, fundamentally avoiding the category of truth, that confused everything in European thinking, and which Plato, Heidegger, Badiou, F.J. Gonzales, and T. Sheehan tried to correct. The purity of thinking is about the divine dimension, and the truth of thinking is about the human dimension.

The purpose of the research

Our goal is to show that Heidegger, who has always sought a way to understand pure being, was increasingly striving to understand the purity of thought and explore ways to a new dimension of thinking associated with being-time in his later work, that is, to show that Heidegger’s work is a consistent transition from understanding the purity of being to understanding the purity of thinking, the turn of the outstanding German thinker from fundamental ontology to the history of being, the formation of ideas on the continuum (topos) of being and time, and further to the history of research (or understanding) of the purity of European thinking (as T. Sheehan said, his clearing (enlightenment) or understanding of the continuum (topos) being-thinking).

Presentation or basic materials

M. Heidegger turned out to be the thinker who initially at the fundamental-ontological level, while Sheehan considers it to be meta-metaphysical (in his opinion, “Heidegger’s

meta-metaphysical inquiry, on the other hand, takes up where metaphysics leaves off”) (Sheehan, 2015: 15)), revealed the internal conflict of European consciousness and, in search of a way to resolve it, began to consider anthropology at the level of human existence, a different level of fundamental reading of human being (called Dasein (Heidegger, 1962) in “Being and Time”). At this level, the problems that arose were hidden behind the boundary of the existence of things (and the world), and, thus, European thinkers were forced to study the inner realm of being (consciousness), which turned out to be completely different from that which all classical culture pointed to. Being in its anthropological underside turned out to be that non-being, or that incomprehensible link in thinking, which in the language of Parmenides opened the way to metaphysics, and in the language of J.-P. Sartre turned out to be a fundamental (deep property) of consciousness itself.

In T. Sheehan’s language, this means the following, “In its briefest formulation, Heidegger argues that the pre-Socratics (we will limit the discussion to Parmenides and Heraclitus) discovered the hidden clearing, ἀλήθεια-1, but failed to see that the appropriation of ex-sistence is the reason why there is a clearing at all” (Sheehan, 2015: 252). That is, Parmenides discovered the complexity of understanding being by thinking, and discovered the enlightenment of human thought (clearing) for grasping things, but did not understand the essence of this complexity, which was revealed only by Heidegger.

The German thinker tried to understand the essence of this enlightenment (“clearing”) and to find a direct path for a human to being (initially through facticity and Dasein). But some researchers believe that Heidegger was wrong on this path. Thus, F. Gonzales considers it his main objective to show that Plato is “right” and Heidegger is “wrong” (Gonzales, 2009: 299). Is it possible, in principle, to designate the topos in which we clearly understand how thinking grasps being? The Greeks discovered this and erected there a building of philosophy. But they did not understand why, when we try to grasp being, we lose the understanding of thinking itself, and were forced to embark on the path of metaphysics, through the introduction (understanding and naming) of such concepts as ἀλήθεια, εἶδος and οὐσία things (see, for example, (Sheehan, 2015: 70). This is why, according to Sheehan, “Greek philosophy and in fact could be raised only by going beyond metaphysical thinking – or, as he (Heidegger) put it, “stepping back” from metaphysics into a region that is before and the basis for it” (Sheehan, 2015: 85).

Together with the Greeks and Heidegger, we found ourselves in that wonderful place where thinking, having thought about why things appear to us at all, should we rely on λόγος (word, language) in this place, as Heraclitus understands the way of thinking, or being, in the interpretation of Parmenides, or we must find in this place clearing (enlightenment), according to Heidegger, can become permeable to itself. Heidegger seeks to show us that as long as we strive to understand things as something external to thinking, that is, we are in subject-object relations with them, thinking seems obvious to us (in the light of λόγος ἀλήθεια, εἶδος, οὐσία, etc.), but as soon as we strive to carry out this operation, proceeding from thinking itself, we instantly take the path of being – and everything becomes foggy and confused. Perhaps, in this place (topos), we are already invading the realm of being-thinking. As Sheehan writes, “It is with us human beings that Sein comes into play (...). Or again: When Heidegger claims that in the modern world “things, to be sure, are still given (...) but Sein has deserted them,” this “desertion” does not mean the disappearance of the “out-there-ness” of things (their existentia or Vorhandensein) but refers, rather, to the loss of the understanding of how things become meaningfully present at all: “Where struggle [πόλεμος] ceases, things certainly do not disappear, but world [i.e., the meaning-giving clearing] disappears.” On both accounts,

therefore – (1) that Sein was not his focal topic, and (2) that what he did mean by Sein was the intelligibility of things (Sheehan, 2015: 11). Here is another answer for our study. Sein was not the basic theme of Heidegger. What was the main focus then? Clearing as that thinking that approaches the understanding of Sein (in our interpretation, this is pure thinking).

Thus, the Greeks discovered that it was not possible to break through to thinking that grasps οὐσία (being, the constant presence of things). Heidegger is surprised that there, where philosophy and metaphysics flourished and where thinking begins (at the origins), we are still in ignorance and misunderstanding. And that means modern culture is opposed to ancient Greek (at its origins). Gonzales states, “The opposition between Plato and Heidegger is not an opposition between the nihilistic forgetting of being, on the one hand, and the attempt finally to think being in a new beginning – though this of course, is how Heidegger wants us to understand it – but rather an opposition between two different approaches to thinking being” (Gonzales, 2009: 292-293). Two thousand years after the Greeks, we are again (thanks to Heidegger) at the origins (horizon) of thinking and in a twofold sense: on the one hand, like the Greeks, we do not see thinking that grasps things in their being, on the other – we are looking for the origins of thinking as such (in the historical-temporal aspect), and we are trying to think like the Greeks to understand the originality of the thinking of European culture. In both cases, the main initiator of both approaches was Heidegger (actually, early and later).

For example, J-P. Sartre was looking for a detour (through Nothingness – from the depths (horizon) of consciousness). Both Heidegger and Sartre were confronted by Parmenides’ fundamental insights that the path to being lies on both sides of the understanding of human thinking (from the truth of being and from the truth of non-being).

But Parmenides closed the second way for Europeans, pointing out that it was the goddess (Dike) who opened the first one to him. The gods, through the consciousness of a human (Heraclitus and Parmenides), endowed a human with the gift of thinking, but in human performance, this gift, as Nietzsche and Heidegger would say, turned into “fettters” of all European thinking (metaphysics and logic), and, as we saw after Nietzsche and Heidegger, the path to a new misunderstanding (Nothingness), because the metaphysical multiplication of thoughts is the path of consciousness into the void of illusory ideas (about the world), as the Hindus would say the path to ignorance or consciousness obscured by Maya – the Indian interpretation of the obscuration of clearing (enlightenment, mental glades). Thinking becomes opaque on the way to grasping being (first of all, one’s being, which early Heidegger tried to formulate through ex-sistence). However, after turn, later Heidegger seeks to solve this problem by searching for the European thinking origins as such (that is, through an analysis of the thinking of the ancient Greeks, primarily the understanding of Plato and Aristotle). Our task is to figure out how close later Heidegger was to what we call pure being.

Heidegger clearly shows that metaphysics is just a limit of thinking, which draws a circle of visibility of ideas about beings (or about things) from the positions of λόγος and ἀλήθεια. Both the world and the cosmos in such a system of knowledge are reduced to a system of things, and the beginning is only the horizon of this system, conjectured from knowledge about things (according to Heidegger, the most profound foundations). In such a metaphysical system of knowledge, the more “thinking turns to the existent ..., the more resolutely philosophy moves away from the truth of being.” (In the existential dimension, on the contrary, “Dasein... the foundation of the truth of being” (Heidegger, 2020: 223). Only a person who can listen to a being can understand its meaning (penetrate its dimension) and find himself on the other side of existence (the world of things). Consequently, Heidegger

concludes that the original appropriation of the first beginning (and hence its history) means the acquisition of soil in another beginning (Heidegger, 2020: 224). Only through the source (the first appropriation of the history of being (destruction)) is a person able to break the circle of being and enter the dimension of truth (as openness) of being, that is, enter the horizon of understanding of being, which Heidegger associates with time. But this, according to Sheehan, is a particular time, “In any case, in his later writings Heidegger was finally clear: these so-called “time” words were only preliminary attempts to name the thrown-open or disclosed clearing, ἀλήθεια-1. “Time” is a preliminary name for the openness of the clearing” (Sheehan, 2015: 97).

On the approaches to understanding non-logos (beyond logic), thinking problems begin everywhere. European culture has only succeeded in understanding the thinking, that is, known as logos (logical and rational). As Gonzales writes, “It is with this conception of λόγος, as it comes to characterize modern logic, that, according to Heidegger, “The way is cleared for the development of thinking as reckoning, grounding, and deducing...” (144-45). Thinking ceases to be a matter of receiving the gift of a being’s self-showing and becomes instead a matter of reliably connecting a predicate to a subject by means of proof, inference, or calculation. Thinking becomes mastery” (Gonzales, 2009: 235). This is the thinking that, according to Heidegger, must be overcome, otherwise, the path to understanding thinking itself becomes closed. Thinking turns into computer calculus, as Sheehan states, “recognizing the “danger” (Gefahr) of the epoché of technik for what it is: the obliteration of the hidden source of meaningful presence” (Sheehan, 2015: 265).

Is it possible to find another way in understanding European thinking, the pinnacle of which is modern computer thinking? This is the main task of the later Heidegger. But the German thinker begins with a careful analysis of how the Greeks thought of the basic concepts, first of all, Plato and Aristotle, and transforms the idea of truth: “time” as the naming the “truth” of being, and this is all as a task, as “on the way,” not as doctrine and dogmatics (Heidegger, 2020: 237). Human is such a creature that thinks and understands being on the way, that is, in time; therefore, time is the basic truth of being (in fact, as in Heraclitus and Parmenides).

Heidegger is influenced by Parmenides, for he says that one must not think of being, but speak of the time of being (Heidegger, 2020: 237). Everything follows from time; it is the basis for understanding being, its main essence. As long as we think about being (about things), both time and being disappear beyond the horizon of ideas about things. “Now the guiding principle of Western thinking is the essence and thinking, “thinking” – ratio – reason as a guiding question and anticipatory grasp of the interpretation of essence, is called into question, but in no case is it that thinking is replaced by “time and everything is relied only on more “temporarily” and more existentially” (Heidegger, 2020: 237-238). Here Heidegger clearly shows the path of new thinking, which is no longer focused on reason, but rather on time (as an understanding of being) and, accordingly, existence. Existential thinking is strictly related to time. The German thinker strives to choose for himself: (and this is not a choice between Plato or Aristotle, but a choice between Heraclitus or Parmenides (time and λόγος or being and οὐσία, or maybe a choice of dimension, where they are one).

If Einstein tried to unite space and time and mathematics into a single continuum (topos), then Heidegger carries out the same operation for being and time, as the path of logos research leads to a dead end. At least, he is already trying to get away from their delimitation in “Contributions to Philosophy (of the Event)”, that is, he is looking for a third beginning (thinking) for their joint grasp. This dimension of thinking, in which the connection between being and time is revealed, is existential. Along the way, Heidegger embarks on the path of

creating existential anthropology (in that he surpasses the narrowness of the phenomenology of E. Husserl and the anthropology of M. Scheler). Heidegger is trying to discover a new dimension of consciousness, in which thinking, time and being, commuting with each other, overcome the classical (rational and empirical) variations associated with an attempt to grasp them as separate structures. The turning point to a new understanding is not “Being and Time”, in which the role of thinking is still very vague and confused because the German thinker is only trying to overcome the fascination with the Greeks. In this regard, Gonzales asserts the following, “This weakness of λόγοι is precisely the weakness with which we see Heidegger continually struggling in “Zeit und Sein.” It is what leads Heidegger to reject the assertion, and therefore logic, as the paradigm for thinking being” (Gonzales, 2009: 293). Λόγοι (logos or logics) are closed. How, then, to start thinking about being? In that context, the later work “Contributions to Philosophy (of the Event)” is important. Dasein personifies only approaches to the problem of understanding thinking, something like viscous mythological thinking, in which everything is still intertwined and the selection of clearing (enlightenment) is still extremely difficult.

However, if the transition has been made, then metaphysics becomes impossible in the new dimension of consciousness (Heidegger, 2020: 238). We fall into the “other beginning” as “a jump that transforms being ... into its more original truth” (Heidegger, 2020: 238). Only here Heidegger, through understanding the event of being, begins to understand the true meaning of the new thinking, in which the initial truth is the connection between being and time (one might say, being-time). Moreover, according to Sheehan, here he understands time “from thinking.” “In the first beginning, truth (as unconcealedness) is a character of beings as such... In the other beginning, truth is recognized and grounded precisely as the truth of being and being itself precisely as the being of truth, i.e., as the intrinsically turning event (...). The leap into the other beginning is the return to the first, and vice versa. (...) is not a transposition into something past, as if this could be made “actual” again in the usual sense” (Heidegger, 2020: 240, 241). Heidegger only emphasizes that both beginnings of thinking – essential and existential – are complementary, and to achieve the second, it is necessary to go through the first as a certain stage of the path. But in the first beginning, “time is experienced here in a concealed way as temporalizing, as transporting, and thus as an opening up; ... Motion as the presencing of the changeable as such” (Heidegger, 2020:249). This is an interpretation of the ideas of Heraclitus (the mysterious transition from non-existence to existence) and Plato (our thinking is synchronous with walking). We only see movement because we think (we go in thinking) synchronously with it. Therefore, in Heidegger’s concept, “every apprehension and determination (concept) of beingness and being is a matter of thinking” (Heidegger, 2020: 256). Thinking is rigidly connected with the comprehension and definition of being. To grasp a thing, one needs thinking (and then the understanding of how thinking itself does this is closed); to grasp being, gross logos thinking is not enough already (Heraclitus and Parmenides showed this); in this place, Heidegger uses the term clearing (enlightenment), allowing to “sharpen vision” (perception of thinking itself). But what is there on the horizon (over the border) of such existential thinking? Heidegger is on this side of thinking (in this dimension). And then, a natural question arises: does thinking distinguish between being and what is beyond its borders (non-being)? According to Parmenides, it does not (thinking is on this side, in conjunction with things), and this is the fate of classical European culture. Heidegger, relying on Nietzsche, argues that culture is unfolded. Comparable with Nietzsche, the old gods have left our Earth (our classically tuned consciousness), and now we want new gods (of being) to come into our thinking, and we have discovered another dimension (another beginning associated with being).

This is the situation of our time, our thinking slightly opens the entrance to a new dimension, according to Heidegger, and begins to understand the essence of its closeness to the classical understanding of being. Gonzales describes this reversal of Heidegger as follows, “Heidegger’s belief in the possibility of a direct naming of being, in contrast, assumes that being is somehow present or manifest in the name itself; the name is not a conventional sign for being, but naturally belongs to, or is appropriated by, being as its own presencing” (Gonzales, 2009: 296).

Sheehan takes this Heidegger twist even deeper, “However, Heidegger’s own work takes two major steps away from metaphysics and its traditional concern with “being.” In the first place, Heidegger’s philosophy was not in pursuit of Sein at all. Rather, he was after das Woher des Seins, the “whence” of being, “that from which and through which... being occurs.” (We note the frustrating ambiguity in the meaning of “Sein” in this case. It could refer either to the clearing or to the being of things. Here, I take it in the second sense.). Originally Heidegger called this “whence” the intelligibility of being (= der Sinn von Sein).

Over the years he reformulated that as the “disclosedness” or “place” or “clearing” or “openness” or “thrown-open realm” for the being of things, all ex aequo (Sheehan, 2015: 9). And even further, Sheehan directly points to the essence of how Heidegger resolves the problem of the eclipse of being (understanding thinking), “In his later work, especially from 1960 until his death in 1976, Heidegger expressed himself a bit more clearly. He declared that the merely formal indication “das Sein selbst” finally turns out to be die Lichtung, the thrownopen clearing, which he designated as the Urphänomen of all his work. The clearing is the always-already opened-up “space” that makes the being of things (phenomenologically: the intelligibility of things) possible and necessary. Heidegger calls it “the open region of understanding” and “the realm of disclosedness or clearing (understandability)” (Sheehan, 2015: 20). Sheehan did a great job and managed to unite the seemingly divergent realm of being in Heidegger into a system. But it is easier to systematize an event that has already taken place (even if it is a rather complex and divergent event) in Heidegger’s work. Therefore, Sheehan, like many other commentators on his work, is only trying to create a logical-etymological system, whereas Heidegger himself argued the impossibility of a single reading of being. Something like how Einstein tried to put the genie (the divergent energy-momentum of the Universe) into a bottle through corrections. However, Einstein’s theory still held out. Heidegger’s genius is that he saw the Greeks’ mistake in understanding being, which led them and all European culture to elevate metaphysics to the highest place in thinking and considered the question of being closed to thinking. And here Heidegger, according to Sheehan, actually made a discovery, “...Heidegger’s question turns out to be 1. not “Whence beings?” – the answer to that is: being; 2. nor even “Whence being at all?” – the answer to that is: the open clearing; 3. but rather “Whence and how is there ‘the open?’” or equally “Whence and how is there the clearing?”

And the answer to that question will be Ereignis – the appropriation of existence to its proper state of thrown-openness” (Sheehan, 2015: 69). But our thought is not about where in the teachings of Heidegger and his magnificent commentator Sheehan the thread of comprehension of being breaks, but about what is beyond this “appropriation of being” border and whether it can be overcome. At this point, Heidegger’s teaching breaks off. We are trying to continue it by referring to the Eastern tradition. And if Sheehan can be understood in such a way that thinking breathes time (filled with time), then we, following the example of Gonzales and Sheehan, are trying to grasp this dimension of thinking, in which it begins to understand its fullness of time and being (from the horizon of spirituality).

One of the variants of such grasping of being is the abyss. In “Contributions to Philosophy (of the Event),” Heidegger ties the beginnings of thinking and being to it. In particular, “time-space as abyss (...) Space-time as arising out of the essence of truth... Space and time... themselves arise out of time-space, which is more original” (Heidegger, 2020: 371, 460). Heidegger looks at approaches to a new understanding of being and considers time-space (almost like Einstein’s) to be part of being (the basis that is bottomless).

“Abyss as absence, as grounding in self-concealment, self-concealment in the way of thinking of grounding” (Heidegger, 2020: 469). For that which is bottomless can only be connected with thinking as a way of transitioning to another dimension, which in our dimension is seen as groundless (it is in this sense that such thinking can be associated with being). And at the same time, “the abyss is... in itself a receptacle-space-counter-moving-in-a-sweep place-of-instant “interspace” as which Dasein must be founded” (Heidegger, 2020: 479). That is, existential thinking must begin with the feeling of the abyss, and in the same place, it collides with interspace as a receptacle for thinking on a different level. There is a feeling that Heidegger, apparently not knowing the physics of his day so thoroughly, was nevertheless somehow involved in Einstein’s work (or at least got to know him remotely) and tried to transfer Einstein’s physical approaches to the field of fundamental ontology, and later fundamental (deep) epistemology (although the word epistemology is inappropriate here, and there is no other suitable word for the science of deep thinking, and for now I call it existential (deep) anthropology (not at all in the sense of Scheler).

In such a context, thinking becomes that clearing, within which a connection with being is necessarily traced, whether it be the existence of Gods, people, or things (everyone goes through the path of being and thinking involved in it). However, in ancient Indian philosophy, in this place, they spoke of the unmanifested state (deep divine sleep of thinking without dreams). On the other hand, it is similar to atheistic Buddhism (and maybe also Jainism). Apparently, according to Heidegger, thinking can only appear where being already exists. For people, where the thought comes into contact with being, there is an effect of clearing, called by Heidegger the interspace, which, therefore, is a kind of transitional event associated with being, with human, and with divine thinking. It is only in the field of being that thinking as such (from-thinking) is manifested, and only then does the conception of being, the gods, and the good arise. A person thinks, finds himself in society and is connected with the Gods only through the presence of being-thinking. Thinking, according to Heidegger of the period “Contributions to Philosophy (of the Event)”, is the gift of being through enlightenment (and interspace).

To get into this clearing, thinking must first (following the example of the Greeks) go through the logical and metaphysical path (λόγος, ἀλήθεια, φύσις, εἶδος and οὐσία) and only later make a jump into a new dimension, since “transitional thinking cannot... rid itself of the metaphysical tradition” (Heidegger, 2020: 527). “Only the transition to the other beginning, the first overcoming of metaphysics (under the transitional necessity of retaining its name), raises this distinction to the level of knowledge and thereby places it into question for the first time-not casually, but as what is most question-worthy” (Heidegger, 2020: 520). Only when it comes into contact with another dimension the thinking faces the need to overcome metaphysics. The question is also whether it is possible to stay in this other dimension for a long time, or it is possible to stay in an existential state for a long time. Heidegger leaves this question unanswered. However, his student Binswanger developed existential therapy, therapy for prolonged immersion in a new dimension of being. Maybe this is the question of whether it is possible to tame a thermonuclear reaction. And the new (spiritual) thinking,

striving for an understanding of being and divinity, resembles this process. Classical thinking, formed at the level of low (logos) energies, says “no”. Spiritual thinking can get into these new (high-energy) states.

A more thorough answer to the question of whether European thinking has matured to deep purity, Heidegger provides in his last work, “What is called thinking?” (Heidegger, 1968). And he begins his research with the assertion that it is necessary to learn to think. And the very mind that dominated European thinking for thousands of years and closed the understanding of clearing only deploys its logos in thinking itself (how can one not recall the Sankhya teaching, in which this idea was realized back in the 6th century BC, then there is in that historical time about which Jaspers wrote and in which, according to Heidegger, we should learn wisdom from the ancient Greeks). Returning us to this past, Heidegger writes that the main thing in thinking is the ability to keep this source, as, “What keeps us in our essential nature holds us only so long, however, as we for our part keep holding on to what holds us. And we keep holding on to it by not letting it out of our memory. Memory is the gathering of thought” (Heidegger, 1968: 3). What did the Greeks leave us that keeps us? Most of Heidegger’s writings for almost fifty years after “Being and Time” (see, for example, works Heidegger, 1979, 1979, 1983, 1992) relate to the search and analysis of the origins of European being and thinking, the search for what initially keeps us. In this beginning, he analyzes the thought of Anaximander, Heraclitus and Parmenides, on whom he writes in this period as the original European thinkers (and their conceptions of λόγος, οὐσία, οὐσία, the ideas of Plato and Aristotle about ἀλήθεια are what, fortunately, or unfortunately, preserves European thought right up to the present). This keeps almost unchanged, although outwardly, retains European thinking to this day. Heidegger, followed by A. Badiou, showed that Christian thought deconstructed (replaced) ancient thought and modern thinkers deconstructed medieval thought. And it turned out that we kept hidden (replaced) knowledge, which resulted in modern technical thinking in its entirety. In these matters, Heidegger has a lot of uncertainty. For example, Sheehan writes, “Is Heidegger arguing that the forgottenness of appropriation is the driving force of Western history or only a reflection of such forces in philosophical terms? Or is it something in between? Heidegger is notoriously vague about all of this. He seems to agree with Hegel that philosophy, his own included, arrives too late to direct the course of history” (Sheehan, 2015:292). In “The Question of Technik,” the severe limitations of Heidegger’s thought are on full display.

First of all, on the perhaps impossible assumption that one could get to the essence of such a complex, multilayered phenomenon as modern “technology” – whether as machines or mindset or the world of meaning... (Sheehan, 2015: 290). Sheehan all the time tries to explain that Heidegger made a lot of mistakes in interpreting the basic concepts of Greek (and therefore all European) thinking, but he also writes that Heidegger does not understand modern European (technical) thinking. And here, you can stand up for Heidegger and whoever crept deeper than him to the very depths of European thinking. There are such? In these matters, he surpassed even the Greeks, pointing out the limits of their thinking about being. That is, he raised the thought of the Greeks to new heights, but, unfortunately (and here we agree with Gonzales and Sheehan), he did not overcome them or pointed to their limitations.

Heidegger experienced this transformation of European consciousness most profoundly in his testamentary essay “What is Thinking?”, where he continued to give lessons in thinking and writes, “In order to be capable of thinking, we need to learn it first” (Heidegger, 1968: 4). So, what does that leave us with? We have been studying for two and a half thousand

years and it turns out we have not yet learned, for “prevailing man has for centuries now acted too much and thought too little” (Heidegger, 1968: 4). But the saddest thing is that “Most thought-provoking in our thought-provoking time is that we are still not thinking” (Heidegger, 1968: 6). We do not think, as that which awakens pure thought, which should call us to think, and has always been associated with pure consciousness, has not awakened in us, as the ratio (mind or intellect) – following any Eastern system, is the lowest level of thinking. Somewhere in this sphere is the thinking of Heidegger, who was once also related to Eastern thought. We have learned to think with the mind (together with the understanding), immersed in the world of things, and the world of genuine pure consciousness is still closed to us. As the German philosopher puts it, “...man is not capable of really thinking as long as that which must be thought about, withdraws... science itself does not think, and cannot think” (Heidegger, 1968: 7, 8). So, first of all, based on the experience of the Hindus, there must be a transition to genuine (pure) thinking, the path of thinking (in India, the spiritual path) must be made. Heidegger pushes the Europeans to the fact that thinking is not memory or reason, but a path (transition) to another (pure) state. Frankly speaking, the German philosopher himself is still on his way and is just trying to find words on how to express the purity of thinking, and what it means to think correctly. For him, as a European thinker, even at the end of his life, this is still a painful problem, a problem of ambiguity, dissatisfaction, and doubts about the correctness of the path chosen by Europeans. In existential thinking, capable of listening to being as such, the path to a true understanding of thought is concealed, which is a movement from an indefinite future (from freedom of thinking as a project) to a distant (deep) past (for the late Heidegger, this is the path to the obscure origins of Greek thinking). But the path from the uncertainty of the future to the uncertainty of the past is certainly vague. Hence all the anxieties of the German thinker were well outlined by Gonzales and Sheehan. However, he is well aware that to obtain clarity, this path (destruction) must be passed, but with unpredictable consequences (after all, a European person always stops at the threshold of purity of thought). What is obvious to the Hindu is obscured by the horizon of obscurity to a European.

European thinking strives for universality (the logic for all, for the idea), while Hindu thinking leads to an individual path (clarification), without passing it through is impossible to make the transition to purity (obtaining higher spiritual knowledge) and liberation (from ignorance). Thus, universal European thinking is radically different from the Eastern one; it is conceptual (as J. Deleuze and F. Guattari pointed out) and leads only to the storage of universal knowledge (concept). We trust the wisdom of Pythagoras, Heraclitus and Parmenides, Plato and Aristotle, without bothering to think about how Heidegger did it or whether their thinking is genuine. Then we turn concepts into idols of the mind (according to Fr. Bacon), which finally close access to the realm of the clearing.

Europeans move from one extreme (the existence of facts) to another (the existence of concepts and notions), forgetting that individual thinking must be active, flow and formed along the way. Only Heidegger begins to understand this, having listened to the purity of being at its source. Over the half-century of his philosophical career, Heidegger’s project went through two major developments: (1) the transition from ex-sistence as the openedness of the clearing to the clearing itself as the source of all meaning; and (2) the decisive insight into the hiddenness of the appropriated clearing (Sheehan, 2015: 265). Thus, Heidegger began to approach the mystery of European (basically any) thinking, the mystery of the origin of thinking, connected either with the soul, with being, or with God. Sheehan describes this movement of Heidegger as follows: “Even Aristotle, although he overcomes dialectic,

still remains oriented toward λόγος in his entire question of being. So close are ὄν and human λόγος in this proto-phenomenological ontology that Aristotle can say that it is the human being who performs the act of bringing the encountering thing into its state of uncoveredness. Heidegger comments on Aristotle, “Uncoveredness [the Unverdecktsein of things] is a specific accomplishment of ex-sistence, an accomplishment that has its being in the soul: ἀληθεύει ἡ ψυχή.” That is, human beings disclose things in their being, and this disclosing (Erschließen as ἀληθεύειν) is “a determination of the being of human ex-sistence itself.” Thus, when it comes to discovering the being of things, “λόγος is and remains the guiding thread” (Sheehan, 2015: 82). Heidegger’s discovery is, first of all, a return to the origins of thinking (Greeks), to the openness of things for thinking.

Being, in his opinion, is not a way of existence of something, but the openness of the something (thing) to our consciousness, the possibility of it (thing) integrating into our clearing. In this sense, when pure being coincides with pure thinking, only there is clearing capable. The question of to what extent this topos (appropriation of openness or enlightenment) is associated with the soul or God is still open. After the studies of Heidegger, Gonzales and Sheehan, it becomes obvious that this deep topos is concealed from gross (material) thinking. It is not for nothing that the Indian thinkers Shankara and Ramanuja, analyzing the state of a person in this dimension, spoke of a subtler world, which they can reach only by purifying (from gross materiality) their thinking. But this dimension, according to Shankara, is covered by Maya (illusion of ignorance).

Thus, we must understand the transition to this new dimension of thinking by gift, presence, or clearing. After all, the Greeks, on the one hand, clearly had in mind gross material things, and on the other hand, they spoke of an “open clearing” of thinking. Gonzales describes this development of philosophy in terms of the ancient Greeks, “...philosophy, in its attempt to disclose the things themselves, must both begin with λογος; and break through it employing a “speaking for and against” (“Furrund Gegensprechen”) that destroys the autonomy and self-sufficiency that λογος has in Gerede and in this way “leads more and more to what is at issue and lets that be seen. What is needed, in short, is dialectic: a speaking that passes through speech” (Gonzales, 2009: 24). That is, before coming to a clearing, a person must rely on λογος (word, language) and go through the path of dialectics (clash of opinions). It is this Platonic-Socratic dialectics, according to Heidegger, that completely confused Greek thought. Gonzales is trying to figure out where Heidegger turned off the path paved by Plato and went into the depths of Greek thought and concluded that, on the one hand, this is his turn from Plato to Aristotle (Plato must be read through Aristotle (Gonzales, 2009:25), and on the other hand, to the Presocratics (primarily Heraclitus and Parmenides). Along the way, Heidegger revealed, according to Sheehan, the key contradictions of Greek thought, its incompleteness and subsequent slide into seemingly strict metaphysics.

Initially, Heidegger tried to break into the depths of Greek thought through existence (Dasein), believing that a human’s thinking is his exclusive privilege, allowing him to see being (something like an escape from Plato’s cave), but later in the 30s-40s for years he was inclined to think that the depths of understanding of thinking are a gift of the gods (through the thought of Heraclitus and Parmenides) at the origins of European thought (that is, in the distant past); the later Heidegger, rather, is inclined to understand the purity of consciousness as a gift from the future, a gift that has not yet been realized.

In this context, Heidegger’s thought strives for the primordially of the European tradition (in this regard, he is a student of Nietzsche), and then the purity of thought is associated with approaching the origins (in our case, European culture, in a rough interpretation of the

critical (fundamental) analysis of the origins of European consciousness – λόγος, ἀλήθεια, logic and metaphysics). In other words, for a long time, Heidegger thinks about the origins of the ancient gift to posterity, successively moving from Parmenides (Heidegger, 1992) to Heraclitus (Heidegger, 1979), and the gift of metaphysical thought (Heidegger, 1983), and revealing the symptoms of the purity of words, language and thought of the Greeks (Gods' light in Heraclitus and Parmenides, the light and authenticity of truth in Plato and Aristotle, which we wrote about in earlier work (Okorokov, 2018). The connection between thinking, being and time can also be found in our earlier works (Okorokov, 2020, 2022). Heidegger is trying to discover the purity (deep understanding) of being and, at the same time, is increasingly striving for the purification of European thought (purity of thought). All of Heidegger's work is a consistent transition from the study of purity (depth of understanding) of being (primarily based on the study of the Greeks) to purity (depth of understanding) of thought, this is the path of transformation of consciousness (from fundamental ontology (the field of existence appropriation) to existential anthropology (the appropriation field (not the property) of European thinking).

But if the early Heidegger sought to understand being from the horizon of time (understanding time unusually, as a deep field of existence), separating them in a European way, then the later Heidegger begins to understand being in a situation when thinking and time are already manifested, that is, he seeks contours of being-time-thinking.

The German thinker takes us along that fine line connecting the source of thought (its distant past) with its ultimate goal (the distant future) as if balancing between the past and the future, not daring to connect them, as Aristotle did in the neologism *entelechy*, and pull apart completely. In this sense, time is, as it were, clamped in thinking (pressed to it by being).

And the very thought of the philosopher balances in space from myth to logos manifested at the origins (in the distant past), and the fundamental pure project of thinking (in the distant future). After all, time in thinking leads not only to synchrony (the way of thinking of the Greeks) but also to diachrony (the clash of times and traditions).

Myth as a narrating word (to narrate here means to make it obvious, to allow the most shining in unhiddenness to appear), myth as an appeal that precedes anything human and makes it possible to think, and in the West, thought about thinking has flourished as "logic" (Heidegger, 1968: 19-21), which is opposed to the opinion that exists in the common history of philosophy. Following the Greeks, Heidegger deduces both myth (as a narrating word) and logos (as a word, as a form of correct thought) in the form of certain openness (unhiddenness), revealing in the depths of thought, to the level of unfolding in the light of openness (whether these are gods or being) consciousness.

However, all these movements of European consciousness are so vague at the origins that the German philosopher constantly says (referring to Hölderlin), "We are a sigh that is not read" (Heidegger, 1968: 18), we are still learning. When we attempt to learn thinking and what calls for thinking, are we not getting lost in the reflection that thinks on thinking? Yet, all along our way, a steady light is cast on thinking... It issues from thinking itself, and only from there (Heidegger, 1968: 28). This is a defining feature of our thought: when we learn to think, the way of thinking is illuminated from somewhere deep. This feature of our thinking was constantly emphasized by German thinker in various works. (Heidegger, 1979, 1983, 1992) To think correctly and authentically truly means to be in the light (to stand on the path of the day (light) according to Parmenides). Many European thinkers and church fathers wrote about the inner light, and Heidegger tries to find the ontological basis of its source. He is fundamental in this problem too: in the search for an understanding of pure

being (you can say light or the source of being), he develops a fundamental ontology (the logic of understanding existence), and in the search for an understanding of the purity of thought – fundamental anthropology (light divine logic and one cannot say that this is light λόγος or φύσις, as Heraclitus and Aristotle would say). If Heidegger’s “to be” means to think fundamentally (from the depths of thought or time), then to think fundamentally (purely) would mean to be in the understanding (in the light) of pure being (at its origins or in the distant future), that is, in essence, be on the road (from the past to the future or vice versa). As the German thinker points out, “Thinking is thinking when it answers to what is most thought-provoking. In our thought-provoking time, what is most thought-provoking shows itself in the fact that we are still not thinking.” (Heidegger, 1968: 28) Where we (Europeans) are in the understanding of thinking in our time, in fact (in the language of the East) means that our thought is still very polluted (by gross material objects and desires) and to think in the purity of understanding (spiritual or at least, according to Heidegger, existential) we have not yet learned (the inner light of the gods and being is closed from us, although at the origins the thought of Heraclitus and Parmenides, according to Gonzales and Sheehan, was still so pure that it collided with being in the clearing, another matter, that she could not explain it, and later on was completely closed by metaphysics, or, better, omitted into metaphysical (logos) thinking).

It is this kind of our (metaphysical or dirty technical) thinking that calls not for virtue and purity; but for false (rude) thoughts and, ultimately, for war (destruction of what is incompatible with it). That is where racial hatred often comes from. Spengler’s proposition is only the negative, though correct, the consequence of Nietzsche’s words, “The wasteland grows” (Heidegger, 1968: 38) “...why the bridge must be found to that nature by which man can overcome his former nature, his last nature.” (Heidegger, 1968: 59) This man, going above and through himself, is Zarathustra, whose cup (consciousness) overflowed, and he descended from above (from the mountains) to people to pour out the light of his wisdom on them (the path of the superman begins with his sunset). “Man, unless he stops with the type of man as he is, is a passage, a transition; he is a bridge; he is “a rope strung between the animal and the superman” (Heidegger, 1968: 60), a passage where you can easily slide back (into your animal past); and this transition needs to be clarified so that the one who goes will find (clarity). “Man is the animal that confronts face-to-face” (Heidegger, 1968: 61), thinking even before action (or thinking), a being whose thinking is stretched out in time.

Before you can think, you must already be able to think. But how then does the first thought manifest itself after birth? This is not yet Heidegger’s problem, for his man is already on the move. “The superman is the man who passes over, away from the man as he is so far? But away whereto?” (Heidegger, 1968: 82). For the German thinker, this one, through whom one passes, is the last person, then a new hypostasis (with a new understanding of consciousness). We are still in transition and have not reached the superman, although, judging by the date of writing the work under study, Heidegger should have already understood the nature of the thinking of Hitler and Stalin. The German thinker is looking for a ground for a new human because thinking about war always calls for aggressiveness, as it calls for revenge (movements of aggressive thinking from the past to the future). However, the Rubicon has already been crossed, the precedent has already been set, since Nietzsche’s thinking refers to getting rid of the spirit of revenge. It is in this new (after Nietzsche) space of thinking that superman is “Caesar with the soul of Christ” (Heidegger, 1968: 88). Here, you can put an ellipsis, as only Nietzsche and Heidegger can connect the will to power with divine love, but the latter sees this gap and tries to overcome it, arguing that “will” and “willing” are the

of the Being of beings as a whole... Revenge is the will's revulsion time and its "It was." (Heidegger, 1968: 95). Or, can it be understood that the effort of the will overcomes time and the being of (false) consciousness; the will overcomes the course of movement of the false consciousness. Heidegger connects (following Nietzsche) another source (will) to the understanding of the purity of thinking.

He needs to show that not only being, but also consciousness is revealed from the depths of time. That is, the time has come to write "consciousness and time" (yes, Sheehan has already tried to shed light on this problem, considering time or as calculated for being (Sheehan, 2015: 276), or as something present (Sheehan, 2015: 280). "It is time, it is high time finally to think through this nature of time... that all metaphysics leaves something essential unthought: its own ground and foundation (...) This is the ground on which we have to say that we are not yet truly thinking as long as we think only metaphysically (...) In accordance with this manner of inquiry, time is conceived as something that in some way is, something that is in being, and so the question of its Being is raised" (Heidegger, 1968: 100). Doesn't this, in turn, mean that time also opens not only from the horizon of understanding being, as Heidegger intended (in the third chapter of "Being and Time"), meaning the link being and time in its uncertainty, but also from the horizon of understanding thinking. The German philosopher brings us to yet another linkage consciousness-being, or rather, to the fundamental trinity being-thinking-time, each member of which disappears without the presence of the other two. It can also be said that the understanding being clears up from the horizon of time, or time clears up from the horizon of the questioned being. So, the understanding of pure thinking from the horizon of understanding of pure being is the way (as the movement of the time) to understanding the origins of pure being. And European metaphysical thinking has not passed this path, since the existing modern thinking still shows itself as present (immanent) beyond the boundaries of such metaphysical thinking, both the understanding of time and the understanding of being disappear; that is, the path to understanding the pure (in Eastern thought, subtle) thinking.

In search of an understanding of the purity of thought, Heidegger constantly brings us back to "the thought of the eternal recurrence of the same is Nietzsche's weightiest thought" (Heidegger, 1968: 108), (we are talking about the fact that what returns is an extreme degree return of the world of becoming to the world of being). But what comes back? The thinking itself, returning to its origins, to that beginning, in which one hears the rumble (as Deleuze would say, commenting on Plato) of becoming a being. At the origins of being, thinking has not yet been clouded by subsequent becoming and, consequently, what is called thinking must also be pure. But if "pollution" is in its infancy, then what about the fact that consciousness is the path? Here, it is necessary to separate the consciousness that is being cleansed on the way and the thinking that is polluted when moving away from the sources. Nevertheless, the pollution of consciousness (in contact with things in the phenomenal sense) is a necessary stage of its formation, that is, purification. When Heidegger, appealing to Nietzsche, spoke of the eternal return, we must understand that he is, first of all, a European thinker, returning us all to Plato and Aristotle (in search of a clearing). And this indicates that consciousness is constantly on the path of pollution and purification, like the truth, which the Greeks (and Heidegger) constantly opens and closes. Nietzsche's idea is deeper and turns us towards Eastern thinking. Where there is a birth of a thought, its decline follows, and where a thought declines, its formation begins (essentially, as in the teaching of Lao Tzu about Tao, the main property of which is return). To understand itself, the thought must return to its origins (to its beginning).

Heidegger learned from Nietzsche and Schopenhauer to subtly understand the nature of Eastern thinking. Hence the pessimism of the German thinker about modern European

thinking. In his opinion, the statement suggests that we do not yet think (...) the former essence of thinking is formulated in representation and as a kind of representation (Heidegger, 1968: 105, 106). But, after all, assertion and representation are the groundings of European consciousness (more precisely, according to Heidegger, Europeans guess that “the forming of thoughts and the forming of ideas may well be one and the same thing.” (Heidegger, 1968: 44) Hence the conclusion of the German thinker that in thinking “we are on the way, in thought, to the essence of thought (...) Our manner of thinking still feeds on the traditional nature of thinking, the forming of representational ideas.

But we still do not think inasmuch as we have not yet entered into that nature which is proper to thinking (...) The real nature of thought might show itself, however, at that very point where it once withdrew, if only we will pay heed to this withdrawal, if only we will not insist, confused by logic.” (Heidegger, 1968: 45) Heidegger’s verdict is clear: we (Europeans) have not learned (or, more precisely, concerning the first Greeks, have forgotten how) to think, and therefore we are sure that the Greeks taught us to think logically correctly, based on concepts, conclusions and statements, while the Greeks were teaching us to understand the nature of clearing.

It seems to us that there is no other way of thinking, except the logical one. Heidegger objects. He asks, “Is logic perchance itself the calling that calls on us to think?” (Heidegger, 1968: 154) Implicitly relying on an understanding of thinking in the Eastern tradition, he well hears all the contradictions of modern European thinking (however, as Gonzales и Sheehan would correct, he hears the ancient Greeks poorly, unclearly, or confusingly). And true thinking must keep its (pure) source; if we are in the field of thinking of Plato and Aristotle, then, perhaps, the source (of the divine thought of Heraclitus and Parmenides) is already closed. This was the reason Heidegger (40s-60s) shifts the source of his thinking to an earlier tradition and turns us to the thought of Anaximander, Heraclitus and Parmenides. We could argue with Gonzales и Sheehan, who stated that the thought of Plato and Aristotle is still in the field of the clearing. But what about the world of ideas and metaphysics; what did other thinkers create? After all, European thinkers turn to them for understanding how we need to think (in this regard, according to Gonzales and Sheehan, the pre-Socratics have come down to us only in fragments, and we look at them through the prism of commentators Plato and Aristotle). But clearing shines through only from these vague and obscure sources of thought. And if Heidegger had found answers to his questions about being in Plato and Aristotle (and the early Heidegger studied both a lot and carefully), would he have turned to Heraclitus and Parmenides? Here is needed further research.

In our earlier works (Okorokov, 2018, 2020, 2022), we tried to reveal the essence of thinking, unfolding time, and the movement of thought to its origins. On this issue, the pedantic (if not to say still thinking in a logical-metaphysical way) Heidegger, who studied only the problem of the manifestation of being in Greek thinking (clearing), does not want to move to an earlier (and purer) source of thought and stops at Anaximander, Heraclitus and Parmenides (although he is already reproached for returning to these thinkers).

His thought breaks off at this point, because he, as a European thinker, is not inclined to look for meanings in Eastern cultures, believing that European thought, as the birthplace of philosophy, is original and self-sufficient. However, even the most superficial appeal to Lao Tzu and Confucius, an appeal to Buddhism, Jainism and the six philosophical systems of India, which also arose in the 6th century BC, leads to the idea of the high philosophical culture of China and India of that period (Jaspers also draws our attention to this, who nevertheless did not dare to write about priorities). We understand that the origin of European

thinking has not yet been clarified. Heidegger stopped exactly at the place where he still hears the “sounds” of being.

But nothing is clear with modern thinking either. According to Heidegger, the own essence of thinking could show itself to us when we remain on the road “We are on the way in thought, to the essence of thought (...) We are under-way (...) between divergent ways (...)” As a marker on our path of thought, we quoted the words of the West’s last thinker, Nietzsche. He said, “The wasteland grows (...) The representative of traditional thinking who is closest to us in time, and hence most stimulating to this discussion, is Nietzsche. For his thought, in traditional language, tells what is “The wasteland grows; woe to him who hides wastelands within!” (Heidegger, 1968: 45-46, 55) According to the ideas of the German thinker, we, immersed in the thoughts of Nietzsche, are, actually, at the very bottom, in the scorched desert of thinking (in the face of nothingness, that is, the subsequent universal nihilism). However, at the same time, we are still on the road. And, perhaps, the true essence of thinking will still manifest itself, for it preserves this authenticity, laid down at the origins (of Greek thought). After all, according to Heidegger, “No thinking, therefore, creates for itself the element in which it operates. But all thinking strives as if automatically, to stay within the element assigned to it” (Heidegger, 1968: 65). Is it possible to understand this in such a way that, according to Nietzsche’s testament, the will holds the element intended for thinking? But such a will is the ability to retain, store and disperse thinking. The will to power is reduced to the translation of the dominant type of thinking (regardless of its content). Here we can find ourselves in the centre of the discussion that unfolded in the Eastern teachings of the 6th century BC about the nature of consciousness and its connection with the soul. In ancient Indian understanding, consciousness is a property of the soul, and only the soul directs the work of consciousness through its energies. Europeans do not think like that and rather talk about freedom of mind, will, thought, et cetera. Thinking is free in its choice of elements for further advancement. However, are we rushing with such conclusions? But what about tradition? Can a European think like a Hindu? Blavatsky, Roerich – where are their thinking pushing us? And vice versa, Prabhupada, didn’t he plant a seed of doubt in the souls of Americans and Europeans?

But the freedom of thinking hangs in the groundless topos, as this is another reservoir for the ambiguity of thinking (except that N. Berdyaev, following J. Boehme, appears Ungrund or Nothingness as the basis of freedom). In a word, according to the recipe of the ancient Greeks, Heidegger had no choice but to look for the maintaining beginning of thinking, which should have appeared as a gift back in Ancient Greece at the origins of European culture. The Greeks discovered it, but have we kept this gift, and if we have kept it, why is the “clearing is growing?” The same Nietzsche, having said, “The gods are dead,” according to Heidegger, indicates the path of transition through the former person and designates him as “superman” (...) The superman is first of all a man who goes beyond, who passes over (...) “The last man” is the type of man that immediately precedes the appearance of the superman (...) (So, Nietzsche tells us that the transition to a new form of thinking has taken place, but also) according to Heidegger, “thoughtful doctrine of man’s essential nature is in itself alone a doctrine of the Being of beings” (Heidegger, 1968: 72, 79), which in this sense is still moving in the line with the ideas of Heraclitus, Parmenides, Plato and Aristotle, as “in modern metaphysics, the Being of beings appears as the will” (Heidegger, 1968: 98). The prescription of the Greeks for thinking as a curse, on the one hand, it keeps us, on the other hand, it closes the very thing that keeps us. The Greeks created logic, but logic becomes a barrier to entry into the spiritual world. That is why Heidegger asks, “Why does the traditional doctrine of

thinking bear the curious title “logic”?” (Heidegger, 1968: 113) Mass and global society is, in fact, the depth of the “fall” (according to Heidegger) of European thought (the clearing is still growing). From the depths of this fall, Heidegger asks, “What is it that calls us into thinking?” (Heidegger, 1968: 114). So, somewhere in the depths, we still keep something (as a gift) of true (pure) thinking

Let us try, according to Heidegger, to collect together everything that is an entry into thinking. A thought usually means an idea, a view or an opinion, or a notion. “Memory” initially did not at all mean the power to recall. The word the whole disposition in the sense of a steadfast intimate concentration upon the things that essentially speak to us in every thoughtful meditation (...) “memory” means as: a concentrated abiding with something not just with something that has passed, but in the way with what is present and with what may come (...) Memory initially signifies man’s inner disposition and devotion (...) “Soul” in this case means not the principle of life, but that in which the spirit has its being, the spirit of the spirit, Master Eckhart’s “spark” of the soul. “Keeping” alone freely what is to-be-thought, what is most thought-provoking, it frees it as a gift.” (Heidegger, 1968: 139-140, 148, 151) It does not store memory, but that which contributes to thinking (for example, prayer). Therefore, when a person’s memory turns into a repository of information (as in modern computers), this indicates the loss of a divine gift. Now, Heidegger’s statement that “the history of Western thought begins, not by thinking what is most thought-provoking, but by letting it remain forgotten (...) The beginning of Western thought is not the as its origin (...) The beginning is, rather, the veil conceals the origin – indeed an unavoidable veil (...) The origin keeps itself concealed in the beginning.” (Heidegger, 1968: 152) We are accustomed to referring to the Greeks, starting with Plato and Aristotle, to the logical and metaphysical type of thinking. However, Heidegger believes that “all of the great thinking of the Greek thinkers, including Aristotle, thinks non-conceptually (...) Concept and system alike are alien to Greek thinking” (Heidegger, 1968: 212-213) We closed the true thought of the Greeks from ourselves, attributing to it the logical-rational element of thinking. The problem is that, according to Heidegger, “thinking does not stem from thought, but that thoughts first arise out of thinking” (Heidegger, 1968: 145), in other words, the thinking itself is a gift, as the German philosopher believes, relying on Heraclitus and Parmenides, the gift gods. The gods opened the depths of thought to the ancient Greeks, but they can also close them, especially after Nietzsche’s statement that the gods have left our Earth. It only seems to humans that they are powerful in their ratio (mind). Being in the logos, a European person closes from himself the true sources of thinking, which do not belong to him (they come from somewhere above). Although a person relies on the logic of the movement of the body and mind and exalts rational and pragmatic theories, the body and mind are only superficial manifestations of deep thinking. Any work of the hand and mind is controlled by thinking, and in the East, they would add the soul. As soon as a person forgets about this, he falls into the power of manipulation and forgets that thinking is a gift from the gods. Along with this, the gift itself disappears, that is, pure thinking closes, and the clearing grows and can close the horizon of thinking. These are the symptoms that are observed in modern Western thought.

Conclusions

If the path to being lies through a complex understanding of human understanding of truth (from openness and closeness, from understanding being and understanding non-being), then Heidegger followed the path that the Greeks suggested to him – understanding the deep (fundamental) structures of existence (Dasein).

Even in Ancient Greece, the Gods, through the consciousness of Heraclitus and Parmenides, endowed a European man with the gift of understanding thinking. However, in the ancient Greek variation, this gift turned into an attempt to combine general concepts with a specific human existence, and this turned out to be possible by creating logos worlds (λογoi), divine in essence, but formed by human thinking into closed conceptual and semantic complexes-topoi (the world of ideas, logic, metaphysics, etc.), because only a person who was carried away by understanding things in thinking could see ideas and types behind concrete things.

It was the ontic interpretation of this gift, as Heidegger would say, that turned into “fetters” for all European thinking (metaphysics and logic) and, as we saw after Nietzsche and Heidegger, the path to nihilism (Nothing), for the metaphysical (logos) multiplication of thoughts and leading to the creation of illusory worlds, as the Hindus would say, the path to ignorance or consciousness obscured by Maya.

Only through the source (reading the history of being (destruction) by thinking) can a person break the circle of appropriation of the existent and enter another (open) dimension of thinking that can lead to clearing, where only the Heideggerian “clearing” opens, leading to the understanding of being. It was only through this mental survey of being that Heidegger came to understand the openness of being in time. Not only being but also the time in Heidegger is revealed in the depths of thinking. So, the German thinker concluded that thinking can hear being from its “openness to understand” (things) and its “openness to understand” time. Understanding one’s openness (openness) is a fundamental (deep) resource of thinking, which European thinking called intuition or insight.

The later Heidegger, thanks to Nietzsche, begins to hear the importance of the human way for understanding being (and time), and time becomes a fundamental source for understanding not only being (early Heidegger) but also thinking (later Heidegger). Everything flows from time – Heidegger begins to hear the “whispers” of Anaximander and Heraclitus. But as long as we think the existent (the essence of the thing), we cease to hear the more fundamental sources of thought (the openness of the world to thought) – being and time, what Heidegger called “the forgetting of being.” However, in the depths of pure (open) thought, Heidegger discovers a new way of thinking (another beginning), which is already unfolding towards the understanding-grasping of time (in a rough approximation of the truth of being) and, accordingly, existence. Existential thinking opens up only on a time scale. But here, the German thinker chooses the path: and this is not a choice between Plato and Aristotle, but a choice between them and the pre-Socratics (Heraclitus or Parmenides), because only in the latter and only through them (albeit in the transcription of Plato and Aristotle) did he see the possibility of understanding being. Kierkegaard chose good and evil together, and Heidegger chose thinking and being together.

If Einstein tried to combine space-time (mathematics for thinking) and energy (nature) into a single topos, then Heidegger performs the same operation for being and time. At least in the work “Contributions to Philosophy (of the Event)” one hears the possibility of their unification, and then there is a search for a third principle (thinking) to grasp their unity. And now it is not being that opens beyond the horizon of time, but also being and time – from the horizon of thinking. So, we can get into a new dimension, where being and time open in unity, a special case which Heidegger called an existential. Later Heidegger brings us to this unity and embarks on the path of creating existential anthropology (for lack of another term, for here, in a metaphysical context, it would be appropriate to say existential (almost quantum) epistemology).

So, from our point of view, the later Heidegger opened the way to a new dimension of consciousness, in which thinking, being and time commute with each other and break away (remove deep) from reason and empiricism (we find ourselves in an existential world, more precisely, the world of the vital reading of phenomenology). The source of this understanding is not “Being and Time,” in which the role of thinking is only secondary, but the work “Contributions to Philosophy (of the Event),” which reveals the main ideas of the later Heidegger.

Dasein is only an introduction to a new dimension of thinking, something like a mythological insight, the viscosity of which does not yet allow one to discern the depths of thinking, but only reveals what is on its surface (existentials).

According to Heidegger’s listening of the entire course of European thinking, we can say that the originally integral (in fact, mythological) thinking went through the path of logical and metaphysical formalization (in the system of concepts), to return, in the person of Heidegger, to its origins (integrity, but already formalized in the existential-temporal topos). Actually, according to Hegel’s behest, Heidegger’s thinking went all the way to European thinking. New thinking, captured by the being and time field, unable to withstand the pressure of openness, begins to bend like the light in the black hole (according to the general theory of relativity) and split, break (Heidegger here uses the term “clearance of being” and at the same time the clearing). Existential thinking is a special case of this gap. But it was precisely this kind of thinking that mystics and Eastern sages aspired to. Through this dimension lies the path to understanding the emptiness of thinking and nirvana. The Indian “Atman is Brahman” means a stable stay in the topos of such thinking, when individual thinking merges with the universal (it is sometimes called Nothingness and emptiness, and sometimes omniscience, as among the Jains).

That is why the unbroken paths of Heidegger and Sartre passed around the theme of Nothingness. The topos of thinking, in which being commutes with time, is the ultimate (pure) thinking that has overcome ignorance or attachment to the material world. Consciousness manifests itself in its purity where it reveals pure being, and pure being means the temporalizing of pure thinking.

Only in such a dimension of thinking do the secrets of being and time begin to be revealed, which, showed all of Heidegger’s work.

But in such a dimension, does thinking distinguish between being and non-being? According to Parmenides, it does not, and this is the fate of classical European culture. Heidegger, relying on Nietzsche, states that in the rupture of the existence of culture, thinkers began to hear the energy of non-existence. As soon as Nietzsche also heard this breath of time, he announced that the old gods were gone, but immediately added – now we want new gods (gods of pure being) to appear in our thinking, in essence, opening the doors to a new dimension of thinking, asking about being, non-being and time. However, this is a dimension in which we begin to understand not only what being is, but also what time is because thinking itself begins to hear its own time and discovers that it is time itself and listens to the temporalizing of time (on which Heidegger wrote).

If existential thinking opens a little from the feeling of the abyss and, in the same place, falls into the interspace as a receptacle of a different quality than ontic thinking, then pure (deep) thinking already listens to its own time. One gets the feeling that later Heidegger having nothing to do with physics, is still familiar with Einstein’s work since he transfers Einstein’s spatio-temporal insights into the area of the deep ontology of thinking.

In such a context, thinking is that universal topos, to which all that is connected with being necessarily flows, be it Gods or people (everyone goes the way of being). Essentially the same ideas can be found in atheistic Buddhism (and maybe Jainism). Apparently, according to Heidegger, thinking can appear only where being already exists (see Lao Tzu's Tao). In the place where a person's thought contacts the being, the effect of clearing occurs, discovered by Heidegger among the Greeks and called interspace, which, therefore, is a kind of transitional event associated with being, human thinking, and the Gods. Only in the field of being is the true nature of thinking as such (out of thinking) revealed, and only then does the idea of being and time itself, of gods and goodness, arise.

A person thinks, discovering himself in society, but is connected with the Gods through the presence of being. Thinking, as can be concluded based on Heidegger's reflections, is the gift of being through clearing, and interspace.

One more conclusion can be drawn, both Plato and Heidegger, turned to the metaphor of the ultimate being (the Allegory of the Cave), like Einstein, who relied on the metaphor of light in different aspects of thinking about being. The gods illuminated the way of thinking of Heraclitus and Parmenides, but Einstein also referred to thought experiments in understanding light. Light is the ultimate limit of European thinking, which only thinking itself is capable of surpassing. That light border, which European thinkers were afraid to cross, was crossed long ago by Eastern sages.

Almost fifty years after the writing of "Being and Time," early Heidegger's intuitions began to be confirmed. It turned out that even modern European thinkers have not taken decisive steps to understand the deep nature of thinking itself (except for the experience of the Freudians and S. Grof's experiments with altered states of consciousness). Another conclusion also possible from the later Heidegger, that we (Europeans) still do not think, because that which awakens true thought, which should call us to think, has not yet awakened. It has always been associated with pure consciousness because the ratio (mind or intellect) – following any Eastern system, is the lowest level of purity of consciousness. Something similar was understood by Heidegger. The ideas of Eastern teachings are not alien to him. We (Europeans) have learned to be involved in the world of objects ("The System of Objects" by Baudrillard) and are always immersed in the material world, while the true world of pure thinking turned out to be closed to us. It seems that the later Heidegger was close to the idea that time reveals not only being but also consciousness. That is, the era of the transformation of thinking is coming.

That's one way of putting it – if, according to the Greeks, the understanding being was revealed a little from the horizon of time. According to Husserl's testament, the time of thinking is revealed from the understanding of its inner essence. Pure thinking can only be revealed from the horizon of understanding pure being. European (in fact, metaphysical) thinking has not gone through this route, since it is still under the sign of "techne" and suppresses all other (higher) dimensions of being, and at the same time, topoi of understanding time and being are also suppressed. Thinking is not just a "clearing" that meets things, but also a path that needs to be passed. And since his return to himself has not still taken place, Heidegger, relying on Schopenhauer and Nietzsche, is quite pessimistic. The time for pure thinking has not yet arrived.

Thus, in later works, Heidegger writes a lot not only about the externalization of metaphysics but also about the substitution of genuine (pure) European thought. In this sense, did Heidegger manage to turn us to the true origins of European thinking? The question remains open, since his followers (deconstructivists of all levels) mercilessly brought down

European metaphysical thought, but did not find a way out (perhaps, but A. Badiou). We say that the Greeks were at the origins, but we forget that all the early Greeks learned to think in the Middle East and Egypt (in older cultural areas). And even behind the thinking of Anaximander, Heraclitus and Parmenides, the purity of the light of the Gods (Artemis and Dike) was hidden, or maybe that's what they called "light from the East." In both cases, their thinking was not independent (but this fact is hidden in the fog of history). Therefore, Heidegger reconstructed the thinking of the Greeks in the etymological plane in the context of the phenomenological and Nietzschean ideas of his teachers.

And since pure (in itself) being eluded Heidegger all the time, as it was with the ancient Greeks, the later Heidegger began to look for another (in our understanding, pure) dimension of thinking, in which being would reveal its nature. Our earlier study was devoted to the search for the purity of consciousness of the early Heidegger, now it is supplemented by an analysis of the purity of European thinking in the later Heidegger.

This made it possible to confirm the idea expressed in the previous article: although we are used to believing that the German thinker was looking for the nature of being and throughout his life he was engaged in the study of being, nevertheless, the second important topic, and, apparently, a higher priority in Heidegger's work, is the theme of the possibility of that purity of European consciousness, which will allow us to understand the deep nature of being.

The same path was followed by the entire European culture, starting from the ancient Greeks, but, judging by the conclusions of Nietzsche, Husserl, Heidegger, Badiou, F. Gonzales, T. Sheehan and other thinkers, we are still in the mode of the predominance of the logical-rational nature thoughts (the desert is growing) and do not understand the deep sources of pure thinking. As the later Heidegger said, we (Europeans) have not yet learned to think.

We would also like to mention the magnificent Heidegger studies of F. Gonzales and T. Sheehan. These works are worthy of being included in the treasury of modern analysis of antiquity and Heidegger's work; though, they change little in the general trends in modern European culture understanding, much is clarified in their attempt to find an interrelation between modern and ancient culture, that is, in what the later (and indeed early) Heidegger. However, Heidegger himself is a worthy student of Nietzsche and Husserl, and he is quite modern in an attempt to overcome the Greek metaphysical thought as he sees it.

But even his work has not yet changed anything in the general field of understanding of the entire European culture as a whole, starting from antiquity. Does it stimulate thinking? Undoubtedly. Nevertheless, whether we want it or not, the working of Nietzsche, Heidegger and postmodernists is a sentence for the Greeks, not because they were not wise enough, but because they opened the era of metaphysical (logical-rational-mathematical or calculating, according to Heidegger) thinking, which the Europeans perceived as a complete phenomenon of thought. This is heard in our time. Anyone who finds a way out of this modern ambiguous situation truly deserves respect. Respect for the Greeks, coupled with the destruction of their thought. Is this not a paradox of modern thinking?

F. Gonzales and T. Sheehan, like A. Badiou, sought a way out through a new interpretation of the Greeks (through understanding Heidegger's position). And this is their huge achievement. However, they did not pay attention to the fact that any interpretation of the Greeks, including the Heideggerian, except for the spiritual (in our reading, Eastern), is still the way to calculating (or calculating, according to Heidegger) thinking, which without immersion in spirituality is not capable of generating anything more than lamentations about the beauty of Greek thought and contemporary problems of European culture (although

A. Badiou felt this and interpreted the truth as an event, and called the naming of the unnamed the path to evil). In this case, it seems we need an outside point of view.

And it can be the East (and ancient cultures), as there were simply no other sources of thought yet. But we have not forgotten the precepts of hermeneutics, understanding (being and pure thinking as well) begins with tradition. And how many ancient scrolls are still hidden in the Middle East and the Himalayas? We speak of a return to the ancient (wise, but bygone) civilizations of a non-European type. To survive, we must consider their experience, the experience of wise, but descended into non-existence civilizations, from which only traces (of being) remained (as Derrida would put it) and, it's really bad to say, dust.

The Europeans step on their rake again and again, because through Oedipus and Freud they drove their consciousness into that corner from which the Greeks will not give salvation, as psychoanalysis ends in the unconscious, and what is beyond consciousness (calculated thinking) Europeans do not know. This is a dead end (topos), constantly returning us to techne. Oedipus as a symbol urges us to the dependence (non-property). The mass man raised the banner of Oedipus.

In these matters, Eastern wisdom is closer to me; I consider both Plato's thought and Heidegger's thought to be its derivative (most of the largest pre-Socratics studied in the Middle East and Egypt). To reiterate, the West is inevitably drawn to the East, since it holds spiritual wisdom. But the West tried to logicize Eastern ideas (in the Christian aspect including, and this is also from the East and from Aramaic origins) and, apparently, unsuccessfully. Heidegger aptly likened that logos, logic and metaphysics are only a stage in the formation of any high culture, but those who stop at this stage will ultimately receive modern Europe with its fascism and Stalinism, and liberalism (in the European version) just another phase of pandering to the basest instincts. Freud, and indeed Jung, will be overcome, and exactly by religious thinkers. Heidegger is only a symbol of the changes that have begun in modern European thinking. It's already happening.

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Lady Xian's Cosmology and Philosophy as a Masterplot of Modern Chinese Culture

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This article presents the results of the authors' research on cosmological and philosophical narratives related to the personality of Lady Xian and her cultural heritage, and on their function in the contemporary cultural practices of Guangdong Province and the whole modern Chinese culture. The authors systematise Lady Xian's corpus of cosmological and philosophical narratives, reconstruct Lady Xian's main cosmological concepts and philosophical ideas, and reveal their specific features as well as their differences with Western cosmology and with cosmological narratives in Western culture.

The authors show that Lady Xian's philosophical and cosmological ideas function as the masterplot of modern Chinese culture, which comprises such essential components of China's international cultural policy as cultural identity, cooperative attitudes to other cultures, the dissemination of Chinese traditional culture in the world, peaceful coexistence, and soft power.

The authors argue that Lady Xian's cosmological concepts are an essential component of the implementation of the cultural aspects of China's Belt and Road Initiative and that they can be used as an effective and helpful tool in the spread of modern Chinese culture in European countries. The article concludes that Lady Xian's cosmological concepts are an essential method for deepening the understanding of China's international cultural policy and China's Belt and Road Initiative in European countries. In addition, Lady Xian's culture can be used as a counter-narrative in overcoming some

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negative stereotypes about China's international cultural policy and China's Belt and Road Initiative present in the information space of European countries.

Keywords: Lady Xian's culture; Lady Xian's masterplots; Lady Xian's cosmology; Lady Xian's philosophy; Chinese philosophy; Chinese culture; Guangdong Province culture; the Belt and Road Initiative.

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Introduction

Lady Xian is a well-known and respected figure in the history of Chinese culture, philosophy, and political thought. Lady Xian's life and historical deeds developed to the level of a complex of cultural practices, which in modern Chinese culture were called "Lady Xian's culture." The peculiarity of Lady Xian's figure and Lady Xian's culture is that historically it arose and developed as a local culture in Guangdong Province, in particular within the culture of the city of Maoming, but it later acquired a national status in China. In 2000, the President of the People's Republic of China, Jiang Zemin, assessed Lady Xian and Lady Xian's culture as models to teach and imitate by modern and future generations (Lu, 2013).

The second notable feature of Lady Xian's culture is that despite being universally recognised, systematically researched, and widely practised in modern China, it remains in our opinion, insufficiently researched by Western scientists and little known in the broader cultural practices of Western countries. This is evidenced by the analysis of recent scientific publications on Chinese philosophy and culture in Western academic publications.

The third feature of Lady Xian's culture is that at the heart of its core values and outlook there is a specific cosmology, which in our study, we term *ethical cosmology*. The cosmological concept of Lady Xian's culture is virtually unexplained both in China's corpus of academic literature and in the writings of Western scholars. This circumstance is not a problem for comprehending Lady Xian's culture in China, since the cosmological concept of Lady Xian's culture is self-explanatory for the carriers of Chinese culture. However, in the academic environment of Western countries, the lack of understanding of cosmological culture is a significant obstacle to the Western world's understanding of both Lady Xian's culture and many national and international cultural practices in modern China.

The aforementioned features of the status of Lady Xian's figure and culture became one of the main motives for conducting our research. Lady Xian's culture, in our opinion, is one of the fundamental components of modern China's national and international cultural practices. Moreover, Lady Xian's culture functions not only as a system of values and cultural practices but also as a basic narrative of modern Chinese culture, the core of which is the cosmological narratives of Lady Xian's culture. The analysis and explanation of the main cosmological and philosophical narratives of Lady Xian's culture and the functions of Lady Xian's culture as a basic narrative of modern Chinese culture can become an effective tool for spreading Chinese culture in Western countries, improving the understanding of modern China's international cultural policy, implementing China's Belt and Road Initiative (BRI), deepening a mutual understanding and international cooperation of China with European countries, and overcoming cultural stereotypes in the perception of modern China's culture in European countries. That is why this study focuses on the study and

analysis of the cosmological and philosophical narratives of Lady Xian's culture, as well as on the analysis of the functions of Lady Xian's culture as a masterplot of modern Chinese culture.

The objectives of our study are the following: 1) a description of the modern corpus of narratives reflecting the figures of Lady Xian and Lady Xian's culture; 2) substantiation of the system of cosmological and philosophical narratives of Lady Xian's culture as one of the basic narratives of modern Chinese culture; 3) an identification of the possibilities of applying the cosmological and philosophical narratives of Lady Xian's culture in the implementation of China's Belt and Road Initiative in European countries.

The methodology of our study is based on the results of a study on the functioning of narratives in cultural practices by H. Abbott (Abbott, 2020) and J. Halverson (Halverson, 2011), modern studies in the field of cosmology and the correlation of cultural practices by O. Bazaluk (Bazaluk, 2021) and Y. Sobolievskiy (Sobolievskiy, 2019), and research on the implementation of the Belt and Road Initiative by D. Svrydenko (Svrydenko, 2019), F. Cai (Cai, 2019), and J. Berlie (Berlie, 2019).

Corpus of LadyXian's Cultural Narratives

Lady Xian's culture includes a large number of tangible and intangible objects of culture. According to Zhang Junshao, the study, analysis, and development of Lady Xian's culture began in China at the time of Lady Xian's life and continues until now (Zhang, 2012). In the 20th century, research on Lady Xian's figure and cultural heritage became more systematic. Numerous research groups were formed to investigate material aspects of Lady Xian's culture as well as its historical, normative, religious, legal, and social components. The study of Lady Xian's culture continues at the present stage, considering the needs and current tasks of modern Chinese culture.

In this study, however, we consider it appropriate to focus on the description, not so much of the works and texts dedicated to the figure of Lady Xian and Lady Xian's culture as of the body of Lady Xian's cultural narratives, at work in modern cultural practices in China. Undoubtedly, the generalisation of Lady Xian's cultural narratives can be carried out based on current research on Lady Xian's culture.

The following narrative presents the core historical plot of Lady Xian's culture.

During Lady Xian's lifetime, the southern territories of China were plunged into great schism and chaos. In the south, separatist uprisings often took place. The local ethnicity to which Lady Xian belonged was the most numerous among others and spread throughout Lingnan. In the face of the uprisings, Lady Xian could support the separatist movement and secede. However, instead, she decides to recognise Lingnan and Linbei as one and implements the idea that all Han ethnic groups and local ethnic groups of the South of China live in the same country; all of them are citizens of the same country and must resolutely protect the unity of the country.

Historically, ethnic contradictions in Linnan are mainly rooted in ethnic minority discrimination by Han nationalism. Representatives of China's dominant Han ethnicity disdained Linnan's ethnicities. However, thanks to the efforts of Lady Xian, Linnan's national integration into China took place, resulting in the integration and reconciliation of the dominant Han ethnicity and the local

ethnicities of the South of China. Lady Xian took advantage of this historic opportunity strategically and promoted national unity. She adopted a "marriage method" to resolve ethnic conflicts. She took the initiative in marrying Feng Bao, a Han official, which fostered Linnan's ethnic integration and accelerated the Chineseization of local ethnicities. At the same time, she also took advantage of the conditions of migration of Han people from the central plains to Linnan to promote a mixed residence of Han ethnicity and their ethnic groups, which contributed to the integration of the Chinese language. (Lu, 2013)

The key components of this narrative are the following: 1) the integration of ethnic groups of the South of China into a single state and state life; 2) the avoidance of a forceful path to integration through armed confrontation in favour of the use of "soft power" or "cultural force" (in particular, the "marriage method"); 3) the affirmation of equality between local Lingnan ethnic groups and the dominant Han ethnic group after integration through the rule of law, love for the people, personal authority, and political wisdom.

Several other components formed around the above narrative, which determined the development of the system of Lady Xian's cultural practices. These include the following: 1) the value of unity in contrast to separatism; 2) peaceful coexistence against war; 3) strong force against coercion; 4) the dominance of the law over ethnic differences; 5) the preservation of the values of local cultures within a multi-ethnic state; 6) a friendly and loyal attitude to the Other in culture.

In modern scholarly literature devoted to studying and analysing Lady Xian's culture, these narratives continue to be reflected in different authors' variations. For example, Lu Cheng outlines four aspects of Lady Xian's "cultural spirit:" patriotism, love for the people, national unity, and the rule of law. With different variations, similar aspects can be seen in other modern authors, including Deng Chunling (Deng, 2020), Chang Junshao (Chang, 2012), Zhong Wei (Zhong, 2019), Lü Shuyi (Lü, 2019), Zeng Lirong (Zeng, 2021), and Tong Aozhou (Tong, 2018).

An influential group in Lady Xian's cultural narratives are the statements of famous Chinese political leaders who have become a part of these cultural practices. Zhang Junshao (Zhang) systematised them in some detail. In the 1970s, the Premier of the People's Republic of China hailed Lady Xian as the first Chinese heroine (Chang, 2012). A key statement among China's political leaders is a speech by President Jiang Zemin delivered in 2000 at the Xiantai Temple in Gaozhou.

In those years, Lady Xian tried her best to overcome resistance without division, insisted on maintaining national unity, strengthening national unity, and allowing the people of all ethnic groups in Lingnan to live and work in peace and contentment. No wonder Premier Zhou praised her as the "first woman in China." To this day, she is still a model for future generations to learn forever... Lady Xian is a model for building a harmonious society. Publicising Lady Xian's historical achievements and patriotism is necessary to build a sizeable cultural province and a harmonious society. This work must be strengthened. (Chang, 2012)

Another group of narratives reveals the relation of Lady Xian's culture to contemporary values and practices in Chinese culture. They are important for understanding contemporary

interpretations of the figure of Lady Xian and her cultural heritage. These include the following narratives:

- (1) *Lady Xian's culture reflects the fundamental traits of the Chinese people and Chinese national culture, which include tolerance, the desire for peace and peaceful coexistence, and respect and loyalty to the Other and other cultures and peoples.*
- (2) *Lady Xian's culture expresses the indissoluble unity between traditional (e.g. Confucianism) and contemporary culture in China's current development.*
- (3) *Lady Xian's culture reflects a unique, distinctive understanding of family and family values in modern Chinese culture (Deng, 2020).*
- (4) *Lady Xian's culture reflects the model of political governance and the modern political culture of China, which focuses on the ideal of the harmonious development of society.*

The corpus of Lady Xian's cultural narratives testifies to the deep integration of Lady Xian's cultural heritage into modern China's system of values and everyday current cultural practices. These narratives are implemented in educational, familial, religious, social, artistic, and political practices. It can be preliminarily argued that Lady Xian's cultural narratives serve as a cultural identity and provide cultural mechanisms for the unity of the state and culture based, not on ethnicity, but on a civilisation- and state-based identity.

Lady Xian's Cosmology and Philosophy as a Masterplot

The analysis of Lady Xian's cultural narratives allows us to conclude that they are based on a particular system of cosmological representations and that they can be defined as cosmological. We believe that Lady Xian's culture is based on a specific cosmological concept, thanks to which Lady Xian's life and deeds have become a model for developing broad cultural practices and a particular culture. We believe that Lady Xian's cosmology had an original character; it was culturally associated with Pan Maoming's cosmological teachings and became its theoretical expansion and practical development within the historical development of the culture of Guangdong Province. The authors of the present article have studied the philosophical and cosmological views of Pan Maoming as well as Pan Maoming's culture and its functioning in modern cultural practices in Guangdong Province. The results of this study are published in Volume 25 of the *Philosophy and Cosmology* journal.

At first glance, the claim that the central narratives of Lady Xian's culture are cosmological may seem premature and too hypothetical, but, in our opinion, such doubts can arise only in the framework of the reception of Lady Xian's culture by Western cultures. The results of our study indicate that in the framework of Chinese cultural practices, Lady Xian's understanding of culture as a system of cosmological narratives combined with cosmological and philosophical ideas is self-evident.

To justify our point of view, we give the following arguments.

First, it is generally accepted that understanding cosmology in Chinese culture differs significantly from the theories and concepts developed in Western cultures. Therefore, we argue that Lady Xian's culture is a typical example of non-Western cosmology.

Second, most researchers on Lady Xian's culture directly relate its emergence and development to the broader culture of Guangdong Province and Pan Maoming's culture in

particular. For example, Deng Chuling links the figure of Lady Xian and Lady Xian's culture to the Maoming culture (Deng, 2020). Lu Cheng characterises patriotism as the ontological basis of Lady Xian's culture (Lu, 2013).

Third, modern Western academic literature features thorough studies of the differences between the development of cosmology in Chinese culture and Western cultures. These differences are recognised as significant and fundamental.

J. Henderson described the most specific features of cosmology in Chinese philosophy and culture.

The word "cosmology" in modern usage generally denotes a science devoted to articulating the large-scale properties of the astronomical and physical universe. As such, cosmology in our own time is primarily in the domain of astronomers and astrophysicists. The cosmologies of premodern civilisations were, by contrast, somewhat more "cosmic" in scope and appeal: they referred not so much to a special science as to a more general view of the ways in which the components of the world were arranged and ordered. These components do not just include the objects of physics and astronomy, but items of almost every scale and realm of being, from the architectural to the zoological.

... What type of order did these premodern cosmologists conceive (or perceive) in the universe, if not one of scientific laws and mathematical relationships? For Chinese cosmologists and their counterparts in other premodern cultures, correlative thinking was the key to understanding order in the universe. In general, correlative thinking draws systematic correspondences among various orders of reality or realms of the cosmos, such as the human body, the body politic, and the heavenly bodies. It assumes that these related orders are homologous and that they correspond with one another in number, in structure, in kind, or in some other basic respect. Correlative thinking may assume diverse forms and expressions, such as totemism (in primitive cultures), allegory (in medieval cultures), and to some extent, even scientific models (in modern cultures). (Henderson, 2013)

To sum up, cosmology in Chinese culture relies on correlative thinking, so it is a correlative cosmology that involves a wide variety of ways of expressing cosmological concepts. In addition to Henderson's position, we can argue that Pan Maoming's cosmology can be characterised as *alchemical* cosmology before Lady Xian's cosmology, which we may define as *ethical cosmology*.

In this context, the narratives of the civilisational unity of different ethnic groups, peaceful coexistence, a tolerant attitude to the Other and other cultures, love for the people, soft cultural force in opposition to military confrontation, the rule of law over ethnic customs, and the harmonious development of society are a typical expression of a model of peacebuilding extrapolated to society and culture.

These narratives function in modern China not only in the historical context or in narrow religious and social practices but also in national and cultural, educational, scientific, social, religious (Tong), and political practices. Therefore, we assume that Lady Xian's culture functions as a masterplot.

H. Abbott defines masterplot as "*recurrent skeletal stories, belonging to cultures and individuals that play a powerful role in issues of identity, values, ideology, and the*

understanding of life. Masterplots can also exert an influence on the way we take in new information, causing us to overread or underread narratives in an often unconscious effort to bring them into conformity with a masterplot” (Abbott, 2020).

Based on the above definition, Lady Xian’s cultural narratives have the properties of a masterplot. They are deeply embedded in Chinese culture; they “recur in the narrative after narrative;” they touch upon questions of identity, values, ideology, and the understanding of life. Consequently, it can be argued that Lady Xian’s culture functions as a masterplot of modern Chinese culture.

Lady Xian’s Masterplot and the Implementation of the Belt and Road Initiative in Europe

The Belt and Road Initiative (BRI) is a well-known international economic cooperative project proposed by President Xi Jinping in 2013 (Xi, 2014). However, apart from the economy, it includes a fundamental cultural part aimed at strengthening mutual understanding and cultural exchanges, including educational, scientific, and cultural cooperation between China and countries involved in the BRI.

However, the implementation of the cultural part of the BRI in Europe has many difficulties (Berlie, 2019; Cai, 2019), associated with significant cultural differences between the West and China, as well as with many stereotypes taking place in the perception of modern Chinese culture in general and the BRI in particular.

One of the stereotypes of perception of the BRI is the interpretation of this initiative in the terms “strategy,” “expansion,” “expansion,” etc. In our opinion, one of the reasons for this misunderstanding is the reception of modern Chinese culture through the historical and civilisational optics of Western civilisation, as well as the West’s lack of knowledge about modern China’s culture, values, and worldview. In particular, this applies to fundamental cultural mechanisms such as national identity, the experience of the Other and other cultures, and the relationship between the state and the citizens.

In this context, we believe that the dissemination of knowledge about Lady Xian’s culture in Europe can become an essential and effective tool for improving the understanding of the content and objectives of the cultural part of the BRI, other international cultural initiatives in China, and the fundamental cultural values and worldview of the Chinese people at the present stage. Also, Lady Xian’s culture can be used as a compelling counter-narrative in overcoming the stereotypes of modern Chinese culture that exist in the information space and everyday cultural practices of European countries.

We are conscious that the theses are only the beginning of a fundamental discussion that requires the involvement of a wide range of specialists and a number of additional studies. However, such a discussion would be useful and might contribute to improving the mutual understanding and cultural cooperation between China and European countries.

Conclusions and Discussion

As a result of this study, we come to the following conclusions. Lady Xian’s position, life, and deeds are an essential component of contemporary Chinese culture, a contemporary cultural practice that has a significant impact in China but that remains little known in the international academic environment. The key narratives of Lady Xian’s culture are (1) the value of unity as opposed to separatism and the peaceful coexistence against war; (2) soft power against coercion; (3) the dominance of the law over ethnic differences; (4) the

preservation of the values of local cultures within a multi-ethnic state; (5) a friendly and loyal attitude to the Other and to foreign cultures.

The main narratives of Lady Xian's culture are based on the concept of ethical cosmology, which is the result of the development of Pan Maoming's cosmology and philosophy. The cosmological and philosophical narratives of Lady Xian's culture are deeply integrated into everyday cultural practices. They are variously repeated in diverse cultural narratives. Hence, Lady Xian's culture functions as a masterplot of modern Chinese culture.

A study of Lady Xian's culture invites a discussion about the most effective ways to implement the BRI in European countries. The authors estimate that Lady Xian's culture is an essential method for deepening the understanding of China's international cultural policy and China's Belt and Road Initiative in European countries. The authors believe that Lady Xian's culture can be used as a counter-narrative to overcome negative stereotypes about China's international cultural policy and China's Belt and Road Initiative present in the information space of European countries.

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Platonism and Cosmology in Early American Puritan Philosophy

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In the history of early American philosophy, in its earliest period of Puritanism, there were unique thinkers whose philosophical mindset formed original views on the nature of man and the cosmos. Since antiquity, the history of philosophy has been determined by the degree of relevance of Plato's teachings. In medieval universities, and later in the universities of the Renaissance, Neoplatonism, in various modifications, had a great influence. The first settlers in the North American colonies were educated people, some having graduated from English colleges; they knew ancient literature and philosophy very well, had read the texts available at that time, and talked about their God-chosen mission through the prism of Biblical history. The purpose of this article is to determine the influence of Platonism with its cosmological doctrine of the creation of the world and of the eternal and unchanging ideas as the prototypes of things in the Puritan philosophy of New England in the 17th century. The syncretic unity of Aristotelianism and Platonism, thanks to the teachings of Peter Ramus, became popular in New England. As a result of the study of primary sources and texts of Puritan thinkers, a search was made for references to Plato or his teachings. In the books of some Puritan philosophers, such as Williams, Ward, Hooker, and others, there are ideas similar to those of Plato. It can be assumed that they were familiar with Plato's dialogues or with the texts of his commentators. One of the earliest references to Plato in the texts of Puritan thinkers is found in Bradford's journal 'Of Plymouth Plantation' (1651). Also worth mentioning are Stone, Cotton, Mather, Wise and others. All of them were, to varying degrees, familiar with the political, metaphysical, and cosmological teachings of ancient authors.

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*Of the cosmological treatises of Plato, the *Timaeus* was especially popular, where the process of the creation of the world by the demiurge was described. Space exploration, contrary to popular belief, was present in New England, albeit on a small scale. In addition to philosophy, in colonial America, astronomical observations were made of celestial bodies, stars, the Moon, and comets. During the era of Puritanism in the history of early American philosophy, Platonism was an important philosophical current, and it was to become even more prominent in the following eras.*

Keywords: American philosophy, early American philosophy, Puritanism, Plato, Platonism, Cosmology.

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Introduction

The first period in the history of early American philosophy was the period of Puritanism. The philosophy of this period was closely connected with theology; the central concept of all reflections was God and his creations. Together, all his creations constituted a unique cosmos. What distinguished Puritan philosophy from theology? It was an interest in the ancient philosophical tradition. In New England, the influence of the ancient tradition on the intellectuals was noticeable and there is much evidence from the annals of early New England. The Cambridge Platonists influenced Puritan philosophers. The list of influences includes Plato, Cicero, Plotinus, Macrobius and Ficino, among others. In addition to these, many Christian theologians were affected by the Pythagorean tradition: Clement of Alexandria, Origen, Lactantius, Ambrose, Augustine, Pseudo-Dionysius, Anselm, Abelard, and many others, all of whom are quoted by Puritan theologians (Beveridge, 1979: 147). Puritan thinkers studied in the spirit of the medieval traditions that existed in English universities. The seven liberal arts that were taught in universities were compared by the Puritans to a ladder by which a person could gradually climb and free himself from the bondage of the flesh. This ascent was understood as an ascent, not so much of knowledge as of the spirit. The humanities were also considered essential preparation for the study of the three philosophies: natural philosophy, rational philosophy, and moral philosophy. The seven liberal arts were called encyclopedic because they constituted a circle of arts in which they were all interrelated, such as mathematics and music. Music is not limited to audible sound; it embraces every aspect of physical nature or the human mind. It is worth recalling Plato's dialogue *Timaeus* in which the author describes the world soul as an entity created by the demiurge. This soul harmonizes with the cosmos, which is seen as a living organism, filled to bring order, beauty, and good. "For the Neoplatonists, *Timaeus* was a divinely inspired text which also helped to shape the contours of Christian theology, especially in the areas of cosmology and eschatology. Furthermore, Cicero's *Dream of Scipio*, inspired by Plato's *Myth of Er*, gave assurance that, by imitating the music of the spheres, mortals could ascend to heaven as on the wings of music to enjoy immortality and eternal felicity there" (Beveridge, 1979: 148-149). The book *New England's first fruits* (1643) contains unique references to the first codes for the existence of the colonies in New England, the Christianization of the local population, and the state of education. The text contains information about the emergence of Harvard College and the educational process there. The level of education was high, and among the studied foreign languages were both Latin and Greek. All this was necessary for reading philosophical and theological primary sources. "(...) the College was, by common consent, appointed to be at *Cambridge*, (a place very pleasant and accommodate) and is

called (according to the name of the first founder) *Harvard College* (...) Over the College is master *Dunster* placed, as President, a learned conscionable and industrious man, who hath so trained up his Pupils in the tongues and Arts, and so seasoned them with the principles of Divinity and Christianity that we have to our great comfort, (and in truth) beyond our hopes, beheld their progress in Learning and godliness also; the former of this hath appeared in their publike declamations in *Latin* and *Greek*, and Deputations Logical and Philosophical, which they have been wanted (besides their ordinary Exercises in the College-Hall) in the audience of the Magistrates, Ministers, and other Scholars (...)” (New England’s first fruits, 1643: 22-23).

One of the most important philosophical currents of the 17th century in America was Neoplatonism as expounded by Peter Ramus (1515-1572). During the early English colonies in North America, Puritan thinkers based their principles on the Ramian version of Platonism. They received mainly education in England, where they were acquainted with Ramism. “The logic of Ramus had a profound, and according to some researchers, an outstanding impact on Puritan philosophy” (Pokrovsky, 1989: 86-87). Pokrovsky is convinced that Puritan philosophy was similar to Ramian Neoplatonism: “According to the teachings of Ramus, assimilated by the Cambridge Neoplatonists and transferred to the New World by Puritan theologians, there are three types, or rather three sources of knowledge in the world. This is an archetype (a divine pattern, a prototype of all existing things), an entip (an earthly incarnation of this pattern as a result of creation), an ektipe (people’s ideas about the created world)” (Pokrovsky, 1989: 186). The teachings of Ramus were based on criticism of Aristotelianism, bringing it closer to Platonism. Given the fact that Christian doctrine is directly related to the ancient philosophy of Platonism, Platonism appealed to American thinkers, both literally and consistently Waddington has very well described the influence of Plato on Ramus through the doctrine of ideas as prototypes and the basis of being successfully combined with Christian doctrine. The Puritans adhered to Neoplatonism both because of Augustine and because of Ramus. In Christian teaching, truth is described as eternal and unchanging; these qualities were believed by early Christian thinkers to describe the essence of God. Graves, in his book *Peter Ramus and the Educational Reformation of the Sixteenth Century* (1912) called Ramus “the French Plato” (Graves, 1912: 92).

Plato’s Cosmology in Puritan Philosophy

Our knowledge of how well Puritan thinkers knew Plato and his philosophy is fragmentary. We receive information about this either indirectly or directly, through the presence of links in texts or citations. It is worth clarifying the peculiarity of understanding the essence of philosophy and the role of the philosopher in the 17th century. Rudenko is convinced that to understand the specifics of Puritan philosophy, a broader definition of the concept of philosophy is necessary since, at that time, it was often associated with education (Rudenko & Sobolievskiy, 2020: 168). Thanks to English education, American thinkers knew about the logic of Aristotle, the doctrine of the ideas of Plato, and the wisdom of Socrates.

In *The Puritans* (1938), Miller confirms the presence of Platonist ideas in the Puritan worldview: “Puritan thought would appropriate some ideas from Hesiod or Horace, some wisdom from Plato, or even some wit from Plautus” (Miller & Johnson, 1938: 21). Often in the texts of Puritan thinkers, one can find reminiscences (implicit quoting) of the philosophical ideas of ancient thinkers. An example of circumstantial evidence is the meta-form of the ship as an image of the state in a *Letter to the Town of Providence* (1654) by Williams. The Ship of State is a famous metaphor from Plato’s Book VI of the Republic (488a-489d). “That

ever I should speak or write a tittle that tends to such an infinite liberty of conscience is a mistake, and which I have ever disclaimed and abhorred. To prevent such mistakes, I shall at present only propose this case: There goes many a ship to sea, with many hundred souls in one ship, whose weal and woe is common, and is a true picture of a common-wealth, or a human combination or society (...) I further add that I never denied, that notwithstanding this liberty, the commander of this ship ought to command the ship's course, yea, and also command that justice, peace and sobriety, be kept and practiced, both among the seamen and all the passengers" (Williams & Bartlett, 1874: 278-279).

Nathaniel Ward was a pastor in Massachusetts; he was one of the first Puritan philosophers in New England. He wrote both *The Body of Liberties* (1641) and *The Simple Cobbler of Aggawam in America* (1647). It is not known how well he knew ancient philosophy. Béranger suggests that Ward could have had a good knowledge of the ancient heritage, suggesting that he read Cicero and Plato through the prism of Calvinism (Béranger, 1969: 184). Indeed, Ward's texts, we find ideas that send us back to ancient philosophers. For example, the idea of different forms of government refers to the teachings of Plato and Aristotle. "I know no difference in this essentials, between monarchies, aristocracies, or democratic, the rule will be found, par-rational say Schoolemen and Pretorians what they will" (Ward, 1647: 53). He appreciates the legacy of the Neoplatonist father of the church, Aurelius Augustine (Ward, 1647: 15).

Another example of explicit knowledge and understanding of Plato's philosophy is in *Of Plymouth Plantation* (1651) by Bradford. "The experience that was had in this commone course and condition tried sundrie years, and that amongst godly and sober men, may well evince the vanitie of that conceit of Platos & other ancients, applauded by some of later times – that the taking away of property, and bringing in community into a common wealth, would make them happy and flourishing; as if they were wiser than God. For this comunitie (so far as it was) was found to breed much confusion and discontent, and retard much imployment that would have been to their benefite and comforte. For the yong-men that were most able and fitte for labour and service did repine that they should spend their time and streingth to worke for other mens wives and children, without any recompence" (Bradford & Davis, 1908: 146). It is not only this evidence that testifies to the interest of early American thinkers in the history of philosophy, and a more detailed analysis of references and reminiscences allows us to fully estimate the essence of Puritan philosophy. Plato reflects on how the state should be organized; in his ideal state, there is no private property. Houses, wives, and children belong to everyone. Curiously enough, the Puritans considered such ideas, which today might be called communist, seriously. The reason Bradford opposes such an organization of the state is that all attempts to translate Plato's ideas into reality have failed. Consequently, he concludes that the ideas of ancient philosophers, although interesting, are not practical. Scanned copies of his handwritten notes contain one of the earliest references to Plato in America. Although the referenced quotation is from 1623, Bradford began writing *On Plymouth Plantation, a detailed history of the founding of Plymouth Colony* in 1630, making the last entries in the manuscript in 1650.

Samuel Stone (1602-1663) was a Puritan minister and co-founder of Hartford, Connecticut. He hailed from Hertford, Hertfordshire, England. In 1624, he graduated from Emmanuel College, Cambridge. Among the alumni of this college was John Harvard. In 1633, Stone arrived in North America, and in 1642, he published *A Congregational Church, a Catholike Visible Church* (1642). The cover of the book notes that it was written by Samuel Stone, a 'Teacher to the Church of Christ at Hartford in New England'. This allows us, even

though the book was printed in England, to consider the author as an American thinker. The author enters into a dialogue with other Puritan thinkers, discussing the nature of the church and the essence of logic in Christian teaching. Ideas of medieval discussions about the nature of species and individuals can be found in his teaching: “First, Because Genus containeth not the whole quiddity of the thing: for when this answer is given, Man is a living creature; there is yet no difference appearing between him and a beast; a beast is a living creature: and the question yet remaineth what living creature he is. Secondly, It is the proper office of the definition, to explicate the quiddity of a thing, and shew what it is. *Definitio est cum explicatur quid res sit*: when the utmost bounds of the Essence of a thing are laid forth, it is then distinguished from all other things. Thirdly, There may be genus where no question is made” (Stone, 1642). In his disquisition, he attended two things: the explication of some ‘Rules concerning Genus or Totum Genericum’ and the application of those rules to the question in hand. He created the fundamental rules concerning genus and species, built some conclusions upon those foundations, and deduced some consecutaries from those principles. The author expounds on the logic of Aristotle, and the teachings of Plato, mentioning ancient Greek philosophers. “The word is translated from Families hither, by reason of similitude; because as Parents are causes of their children, so genus is of his species. And because those that are born in the same Family, and are of the same house, stock or kindred, have all things in common between themselves, as names, surnames, priviledges, &c. so in like manner species have a like nature in common between them; as Socrates and Plato” (Stone, 1642). The question of the existence of genera and species is directly related to the problem of existence. This recalls the question of the real world and the illusory world, which was important for the cosmological concepts of both the ancient Greeks and the early Americans.

Charles Chauncy (1592-1672), president of Harvard College, in his sermon of 1655 said all who study the arts and sciences understand that the Bible itself taught the principles of ethics, politics and astronomy, as well as ancient languages. If by human knowledge we understand all the knowledge that the ancient philosophers set forth in their treatises, then it is worth remembering that Scripture quotes such authors. Christianity had undergone strong Hellenization. “...who can deny but that there are found many excellent and divine moral truths in *Plato, Aristotle, Plutarch, Seneca, etc.*?” (Chauncy, 1655: 706-707).

One of the most influential and outstanding representatives of Puritan philosophy was Cotton Mather (1663-1728), a preacher, theologian, historian, political and church leader, and author of many biographies, essays, and chronicles. His book *Magnalia Christi Americana* (1702) could be considered to be similar to the Holy Scripture. The text mentions Plato, in particular his story about Atlantis: “...from the Words of Plato, that beyond the Pillars of Hercules there was an Island in the Atlantic Ocean, larger than Africa and Asia together” (Mather, 1702: 2). Information about the location of the mythical island in the Atlantic Ocean was described by Plato in the *Timaeus* dialogue, in one of the most important treatises of the ancient thinker on cosmology and physics, written around 360 BCE. It was translated into Latin by Cicero and was one of the few Platonic texts that medieval and Renaissance philosophers could work with. In *Timaeus*, the relationship between supernatural beings and other natural beings is presented as a relationship between eternal and temporary existence (or non-existence). The cosmos is founded according to the prototypes, and things are only its likeness; that is, there is an intelligible cosmos, and there is a visible cosmos. According to Plato, the Universe was created by the demiurge being, an ideal and beneficent deity, through the interaction of reason and need. The demiurge did not create matter for the cosmos, but he gave it order; that is, he is a creator, a builder. This deity does not create the world out

of nothing but shapes the eternal matter that exists discretely. Plato describes the Universe as a sphere since the sphere is ideal; its uniformity is an advantage over unevenness. The cosmos consists of elements and each element corresponds to one of the following figures: the earth is a cube, the air is an octahedron, water is an icosahedron, and fire is a tetrahedron. Elemental elements are not the basic elements of matter, but their states.

In *Magnalia Christi Americana* (1702), Mather demonstrates his knowledge of ancient philosophical literature and his ability to quote Plato in the original. “One would have imagined that so good a Man could have had no Enemies; if we had not had a daily and woeful Experience to Convince us, that Goodness itself will make Enemies. It is a wonderful Speech by Plato (in one of his Books, De Republica). For the trial of true Vertue, “is necessary that a good Man μηδὲν γὰρ ἀδικῶν δόξαν ἔχέτω τὴν μεγίστην ἀδικίας” (Mather, 1702: 10).

Schneider) describes the history of the emergence of Ramism in New England. In 1580, the introduction of Ramism at Cambridge University by Sir William Temple, contributed to the development of Cambridge Platonism. Among the Cambridge Puritans were Alexander Richardson, George Downname, Anthony Wotton, William Ames, William Perkins, John Preston, and Thomas Hooker, among others. The texts of these thinkers became the main bibliography of early New England philosophers. “Hooker later emigrated and became one of the early leaders in New England. He had studied Ramist philosophy under Richardson at Cambridge before he emigrated to New England, where he became the best-informed expositor of the system and, together with an adequately educated group of New England ministers, continued the philosophical defense of Congregationalism for several generations. This philosophical Puritanism in New England created a distinctive, intellectual tradition, whose chief themes were the theory of theocratic towns, and the academic development of technologia” (Schneider, 1946: 6). Hooker was a Congregational minister and founder of the Connecticut Colony. He was not only an outstanding orator but also an insightful philosopher. Reason was a very important concept in his philosophy. The mind was the defining factor of man. In his book *A Survey of the Summe of Church-Discipline* (1648), he wrote: “A man is a living creature indued with a reasonable soul: and every living creature indued with a reasonable soul is a man” (Hooker, 1648: 44). Tipson, in his article *Seeing the World Through Ramist Eyes: The Richardsonian Ramism of Thomas Hooker and Samuel Stone* (2013), studied the texts of Hooker and Stone. His task was to show how the influential New England Puritan philosophers of the early 17th century perceived the world around them. He explains how this perception was influenced by the Ramist philosophy of Alexander Richardson (Tipson, 2013). There is a certain belief that Puritan thinkers were hostile to natural philosophy. A world governed by the fundamental laws of nature, as it may seem at first glance, is not consistent with the Puritan concept of the cosmos, which is under the control of God. However, the Puritans were no less interested in space exploration than any other people were. A significant difference in natural philosophy in 17th century New England is that little attention was paid to the study of mathematics. Although algebra and geometry were studied in English universities, physics was still taught according to the Commentaries on Aristotle. There was a religious reason for not attaching too much importance to the study of nature since the main thing was the salvation of the soul, and not at all the study of natural phenomena. Puritan thinkers, mostly Puritan ministers, expounded their thoughts in sermons, teachings and instructions. “Hence in the sermons of Puritan ministers, side by side with passages of scripture, appear examples of the wisdom of Greece, episodes from the lives of Plutarch, tart sayings from Aristophanes, hard realism from Thucydides. Plato serves as an authority for the principles of society, subordinated of course to the Word of God” (Miller & Johnson, 1938: 23).

Wise, originally from Massachusetts, was a political leader during the American colonial period. At Harvard, he studied theology and philosophy. In his *A vindication of the government of New-England churches. Drawn from antiquity; the light of nature; Holy Scripture; its noble nature; and from the dignity Divine Providence has put upon it* (1717), studying the forms of government, he mentions Plato and his political philosophy: "The original of our government, says Plato, (speaking of the Athenian common-wealth) was taken from the equality of our race. Other states there are composed of different blood, and of unequal lines, the consequence of which are disproportionable sovereignty, tyrannical or oligarchycal sway; under which men live in such a manner, as to esteem themselves partly lords, and partly slaves to each other. But we and our countrymen, being all born brethren of the same mother, do not look upon ourselves to stand under so hard a relation, as that of lords and slaves; but the parity of our descent inclines us to keep up the like parity by our laws, and to yield the precedency to nothing but to superior virtue and wisdom" (Wise, 1772: 31).

Samuel Eliot Morison, in his book *The intellectual life of colonial New England* (1956) describes the cosmological ideas about the world among the Puritans. "But the Puritans, like the Jews, regarded this earth and humanity as a divine enterprise, the management of which was God's major interest; they were God's people and their God was a living God, always thought of as intensely concerned with the actions and characters of people and nations. Each individual was a necessary item in a significant and divinely ordered cosmos. God has a personal interest in me and has appointed work for me to do. If I am incapable of receiving his grace, it is unfortunate; but if that is God's will, who am I to complain? Yet while there's life, there's hope; and at any time before death, my risen Lord may whisper in my heart that I am of the blessed ones elected by his Father to salvation" (Morison, 1956: 12).

Contrary to popular belief, the Puritans were interested in the teachings of science in the 17th century and were often proponents of it. However, they were convinced that God was the creator of the Universe and, therefore, he had the right to change his laws of nature. John Cotton in *A brief exposition with practical observations upon the whole book of Ecclesiastes* (1654) writes that the study of space does not contradict God's plan; rather that the study of created nature allows one to approach God in thoughts. "*Doctr.* 1. To study the nature and course, and use of all Gods works, is a duty imposed by God upon all sorts of men; from the King that sits upon the Throne to the Artificer" (Cotton, 1654: 23). In the text, he mentions Aristotle and Plato. "First, the original of Fountains to spring from the Sea. Aristotle's reason to the contrary, that water covets to run to the lowest place: And if the water should have this vicissitude, of course from the Fountains to the Sea, from the Sea to the Fountains; then the same place should be higher and lower then itself; will not hold. For some parts of the Sea are lower than the Fountains, and into them, the Fountains send forth their streams to run; other parts of the Sea are as high, or higher than the Fountains, especially in great storms, when the waves seem to ascend up to heaven, Psalm 107.26. And they by secret channels another way send forth Springs of water to feed the Fountains. Plato's Barathrum in the hollow Caverns of the earth, which he makes to be the original of Fountains, is hence also refuted unless he derives the supplying of that Barathrum from the Sea" (Cotton, 1654: 20). Commenting on the book of Ecclesiastes, Cotton discusses whether there is something new in the cosmos. 'There is nothing new under the Sun' is a commonly used saying. However, Cotton believes that it is not entirely correct to say that there is no new thing in the world. After all, it is obvious that civilization is developing, that people are making new discoveries, inventing new things. "To answer these, and such like doubts, many interpretations and limitations of these words have been given, which were not worth rehearsing, as that of *Cajetan* concerning

Solomon, to reason from the Eternity of time to argue the circular motion of natural bodies; and that alleged of *Origen*, touching *Plato's* great year, of 49,000 years, wherein he would have all the Stars to come to the same Position, and so all things to return again in the same course. But to touch only those which come nearer to the truth; Some have thought (amongst whom *Hierome*) that all things now done, were first in Gods Predestination; but though that be a truth, yet not pertinent here: For Gods Predestination is above the Sun; and things done here according to it, are new still under the Sun, as having never been done under the Sun before. Besides, God's Predestination was not in the old time before us, but before all time" (Cotton, 1654: 20).

Danforth is an important example of Puritan thinkers' awareness of natural philosophy and cosmology. In 1665 he described his observations of the comet and some reflections on its nature. Thus, he gave not only an empirical description but also a certain reflection. He writes in his book *An astronomical description of the late comet or blazing star as it appeared in New England in the 9th, 10th, 11th, and the beginning of the 12th month, 1664: together with a brief theological application thereof* (1665) that astronomers have observed various comets, some half the size of the Moon, some larger than the Moon, as they thought. The exact dimensions of the comets were difficult for an American astronomer to determine due to the level of science at the time. He suggested: "Comet was created in the beginning of the World together with the rest of the Stars and hath been hidden in the height and profundity of the Heavens, and at a certain time descending toward the Earth, becomes Visible and Signal to the World, I leave free to after-disquisition" (Danforth, 1665: 3). Puritans had gathered their information from books: Robert Boyle's *Usefulness of Experimental Natural Philosophy* (1663); Charles Morton's *Compendium Physicae*; and especially from the popular "Copernican expositions of Vincent Wing and Adrian Heereboord, whose works had acquainted the students with Galileo, Kepler, and Gassendi, even before the epochal discoveries of Halley and Newton" (Miller, 1939: 733). Over time, ancient ideas about the structure of the cosmos would be revised in the light of new cosmological theories. Ptolemy, Aristotle, and Plato would be replaced by Galileo, Copernicus, Newton and others. And if Plato's cosmology gradually lost its position in the scientific worldview, Platonism would only become more popular in the following eras of the history of early American philosophy.

Conclusions

In conclusion, one can say that the influence of Plato and Platonism on early American philosophy was important, if largely unseen. The intellectuals of early American philosophy boasted a good English education and knowledge of the ancient heritage. Since the Middle Ages, in the European philosophical tradition, Plato and Aristotle had played an important role in education and science. Dialectics and the doctrine of the ideas of Plato, together with the logic of Aristotle, formed the basis of philosophical knowledge. Neoplatonism firmly entered the structure of Christian theology, supplementing the doctrine of God with ancient metaphysics. Of the few available texts of Plato, the dialogue *Timaeus*, one of the most important treatises on cosmology, physics and biology, occupied an important role for a long time. Plato's doctrine of the cosmos and its influence on early American philosophy presents an interesting research problem for the historian of philosophy. In the texts of early American Puritan philosophers, one can find both reminiscences of Plato and explicit references and quotations.

Some of Plato's ideas appear in the texts of Puritan thinkers without indicating the author; this can be considered to be a reminiscence – an implicit quote. For example, Williams

described the image of the state as a ship. One of the earliest references to Plato in America is by Bradford, who mentioned the ancient philosopher in his journal *Of Plymouth Plantation* (1651) in 1623. However, the journal was written between 1630 and 1650. Bradford turns to the ancient past to demonstrate the failure of some political ideas. Stone mentions both Socrates and Plato in *A Congregational Church, a Catholike Visible Church* (1642). Mather, in his book *Magnalia Christi Americana* (1702), mentioned Plato. He mentions the story of Atlantis, which Plato told in his dialogues.

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