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Philosophical-Anthropological Aspects of Space Exploration: Main Contradictions and Prospects for Consensus

Purpose. In this article, the author aims to provide a philosophic-anthropological study on the prospects of space exploration by clarifying several related questions: Why should mankind explore extraterrestrial space? Where are the key consensus points, the achievement of which will be the determining prerequisites for mankind to go beyond the current boundaries of inhabited space and establish ourselves in the outer world? How could anthropology help today in preparing for space exploration? **Theoretical basis.** The author has taken into account a number of recent studies that focus on the social-anthropological aspects of the current stage of space exploration and development. Of particular interest are those specific social techniques and descriptive methods that anthropologists propose to incorporate into contemporary space exploration. These include: thick description method, double exposure method, participant observation method, and special practices of "dwelling", "placing", mapping, outlining, visualizing, etc. **Originality.** From a philosophic-anthropological perspective, the author focuses on understanding the current counterpoints on the path of space exploration, in particular, analyzing the contradictions between technocratic, pragmatic-political, and humanistic approaches to space expansion. Possible prospects for consensus between different worldview positions on the place and role of man in the process of space colonization are formulated. The anthropological discourse is expanded in terms of studying the possible impact of space development for human identity, existential status, and ethical guidelines of the human civilization. **Conclusions.** The near-Earth space has already become an object of influence of human technologies. But so far men themselves in near-Earth space are rare, rather exceptional phenomena. Man, at this stage of space industry development, is mostly just an operator of space equipment. The constant presence of people (with their social, cultural, political, psychological and all other "human" attitudes) will probably contribute to the gradual transformation of this space into an "anthroposphere".

Keywords: human; anthroposphere; space; technologies; competition; cooperation; expansion; Anthropocene

Introduction

The increasingly long practice of human space exploration creates an additional demand for theoretical and applied *anthropological* research. Of course, we do not mean here that in the near future there will be a sharp demand for the services of anthropologists to study the "culture and life of extraterrestrial civilisations of former earthlings" who have established colonies on the Moon, Mars or elsewhere. For obvious reasons, this is unlikely. But today there is already a demand for a *different kind of service from anthropologists*. Their participation helps to improve the human experience of space exploration (Dance, 2019). For example, a number of social anthropologists are contracted by NASA (Tashima et al., 2019) and conduct specific research on the boundaries and laws of privacy on the space station, and other features of human presence in outer space, using the methods discussed below.

Social anthropology, combined with psychology, provides more opportunities to understand the actions of astronauts in the confined space of the space station. After all, astronautics is not only a scientific and technological process, but also a complex art of *human interaction*. This also includes research in the field of gender sociology, especially given the trend that the number of female astronauts is increasing with each space expedition (McComb, 2014; Rummel, 2018).

The philosophical and anthropological focus of this study on space exploration arises also from the fact that the effectiveness of all current space missions depends on the ability to reach an agreement within the team on Earth. Decisions are never made alone. The research team is

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not subject to the hierarchy and bureaucracy that are common in other fields. The field of study has developed special rules of communication between meeting participants, unique practices of interaction between humans and robots (Vertesi, 2015). The management team and the spacecraft (whether it is a station, a rover, especially a lunar or Mars rover) become a kind of single entity – a complex *anthropomorphic* organism with robotic physics and collective human intelligence. The general trend that is evident in a large body of contemporary anthropological research, some of which we will refer to below, is that the space industry offers a chance for a renewed humanity to emerge.

Purpose

The main purpose of this article is to conduct a philosophical-anthropological study of the prospects for space exploration by clarifying a number of related questions: *Why* should mankind explore extraterrestrial space? Where are the *key consensus points*, the achievement of which will be the determining prerequisites for mankind to go beyond the current boundaries of inhabited space and establish ourselves in the outer world? How does *anthropology* help today in preparing for space exploration, in particular, how do *anthropologists* help astronauts prepare for flights and help physicists to make their fundamental research more understandable to the general public?

Statement of basic materials

Ethical, legal, security and pragmatic aspects of exploration of near space objects

Humanity (at least the advanced part of it) has long been obsessed with the idea of unravelling the mysteries of space. But, as with all other key issues that arise in science, socio-cultural practice, and life in general, there is no consensus on the prospects, goals, and objectives of space activities, on the tools and technologies for their implementation, or on the limits of human interference in the existential secrets of the universe. This was discussed by E. Cassirer (2023) in one of his works almost a century ago. But even today, many of the questions raised do not have unambiguous answers.

Philosophy poses a number of questions to the whole of humanity, which implicitly include one that determines the entire strategy in relation to the issue under study. To use Aristotle's terminology, the "target cause" should be determined, and then (in the projection to space activities) this question may sound like this: is it necessary *to explore* space at all – not just to study it, but to practically explore it, to try to colonise the nearest celestial bodies? And if the answer is yes, then *what for* do we need to go beyond the boundaries of the familiar earthly world (with such difficulty)?

After all, it is obvious that, firstly, we have not yet solved all the codes and mysteries of *our* planet. And the complete exhaustion of its natural resources is still far away (and the invention of new energy sources, reclamation, recycling and other technologies push this prospect even further). Secondly, the various civilisations of the Earth have not yet learned to live in peace and harmony, without wars, violence, blackmail and mutual threats, not to mention the enormous socio-economic and cultural stratification of humanity. So maybe it would be more appropriate to invest money and joint efforts in improving life *here* on planet Earth?

Proponents of active space exploration counter-argue that the keys to the secrets of the Earth, to unravelling the mysteries of the origin of life in general and humans (as a special case) lie out-

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side our planet (Gleiser, 2012; Sarkar, 2022). And the study and gradual development of space should bring several beneficial effects at once: it increases our cognitive abilities, can contribute to the further development of the noosphere (and the consolidation of humanity on this basis), expands the experimental field of science, contributes to the qualitative growth of empirical knowledge about space and space bodies, has a significant resource potential and can serve as a certain alternative to Earth's natural resources in case of their exhaustion, etc. All of these are, to a greater or lesser extent, *pragmatic* aspects of space activities.

But there are also *metaphysical* aspects to the human desire to explore any extraterrestrial space. After all, by going beyond the borders of the current inhabited space, a person seems to encroach on the pre-existing "earthly order of things" and tries to prove to himself or herself the ability to build (literally) new worlds outside our traditional, earthly abode. Outside this abode, there are new opportunities; to begin with, at least those material resources that are rare on Earth but abundant in lunar soil, as mentioned in more detail in a number of studies (Fa & Jin, 2007; Johnson et al., 1999).

Some researchers are optimistic about the "space prospects" of humanity, and already see a number of space activities as new drivers of development, at least for the *earth's* economy. For example, a tourist trip to space is no longer futuristic, but a quite affordable option for people with good health and sufficient capital. In this regard, we can mention an interesting study (Spector et al., 2017), which seriously suggests that space tourism should be considered as a future new trend in the tourism industry. Contrary to the dominant discourse that modern general mobility (including mass air travel) has a negative impact on the biosphere, the authors of the study tend to believe that "space mobility" will benefit humanity, and that soon the Earth will not be the only realm of anthropogenic influence. Space tourism will lead to an even greater commercialisation of space activities, which will open up new prospects for humanity. And all recent years have shown how correct such predictions are.

The aforementioned study cites a number of arguments that illustrate the link between space tourism and sustainable development:

Given the new reality of spacefaring mobility and space tourism, there is now a need to further extend our spatio-temporal framing of sustainability. There are three key arguments. First, we must endeavour to attain both a sustainable state and a sustainable trajectory, and the latter is too often neglected in dominant sustainability discourses. Second, working towards a sustainable trajectory necessitates a more nuanced discussion regarding the relationship between tourism, mobility, and sustainability. Third, given the centrality of the tourism industry in facilitating consumer access to space (and therefore the development of space resources and the extension of human life beyond the biosphere), important questions about sustainability (both specific to tourism and more broadly) need to be critically addressed by the sustainable tourism academic community. (Spector et al., 2017, p. 281)

Opponents of active space exploration do not share this optimistic belief in the co-evolution of the biosphere, technosphere and sociosphere to the extent that with the further development of this co-evolutionary process, *the prospect of colonising extraterrestrial space* would become real. These doubts are caused, in particular, by the realisation of the obvious incomparability of the scale of human civilisation with the infinity of space and time, with the vastness of the Universe.

But if we accept the above-mentioned *perspective* as highly probable, then our previous "anthropic niche" is significantly expanded. The process of reconstructing the "human niche" will need to be understood in an evolutionary context, taking into account the synthesis of ecological,

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biological and social landscapes, which cannot be considered as separate spheres (Downes & Machery, 2013; Fuentes, 2017). *The expansion of the anthropic niche* in the process of exploring new spaces obviously increases the degree of human freedom, but at the same time, the degree of responsibility. The issue of the correlation between freedom and responsibility in the philosophical-anthropological context has been discussed in some detail in recent studies (Borinshtein et al., 2021; Greenberg, 2024).

Legal issues in the field of space exploration have as their main premise a general distrust in the international public consciousness as to whether the exploration of outer space will have exclusively peaceful purposes and pursue only scientific and humanitarian interests. This distrust stems from the entire previous history of human civilisation, and borders on various geopolitical fears and doubts. It is no coincidence that all international agreements aimed at formulating the principles of cooperation in the exploration and use of outer space and space objects – starting with the 1967 Outer Space Treaty, the 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, and ending with the so-called Artemis Accords of 2020, – contain concerns about the prospects for the exploitation of near space objects by individual states not only for peaceful and scientific purposes, but also for military interests.

In other words, in addition to all the existing problems of technical, technological, socio-economic, and private law nature, there are unresolved issues of *public law* nature. The lack of consensus on many of them creates serious obstacles to peaceful space exploration and lays the groundwork for geopolitical and humanitarian controversies in the future, when the development of outer space enters a more intensive phase. For example, the Outer Space Treaty declares the freedom of any peaceful scientific research in space and names the basic principles of space activities (including the impossibility of privatisation or nationalisation of celestial bodies and the prohibition of strategic weapon deployment in near-Earth space), but does not provide for any real tools to monitor their implementation or a system of sanctions for violations of international security principles using near-Earth space.

An equally important general humanitarian imperative related to human space exploration lies in the realm of *ecology*. On Earth, we have already faced the environmental consequences of garbage accumulation, which natural mechanisms cannot cope with. And on airless space bodies (such as the Moon), where there are no such natural mechanisms at all, the problem of waste disposal arises from the very first steps in the development of such celestial bodies. A discarded malfunctioning mechanism, as well as human waste from a stationary lunar base, can remain on the lunar surface for millions of years in an unchanged state. Thus, to the international security issues related to the possible militarisation of near-Earth space, there are added no less acute threats to environmental safety, the ethics of space exploration, and the need for more substantive international legal regulation of space activities.

The socio-economic prospects for active space exploration are still unclear. Science will undoubtedly benefit from any research in this area. But will the global economy and national economies benefit? After all, exorbitant national ambitions and geopolitical competition often lead to the depletion of state budgets. Especially if an arms race begins (as it has happened many times before) in an effort to gain strategic dominance and secure economic, military and political hegemony, including through the militarisation of near-Earth space. At the same time, the economic strategies of many powerful states directly or indirectly mention space exploration as a promising area of their own development and building mutually beneficial international cooperation (Svyrydenko & Stovpets, 2020).

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However, today there are *no* guarantees that the development of resources even on the closest to the Earth space bodies can be at least somewhat profitable, for objective reasons: huge distances, specific mining conditions, lack or extreme cost of technologies for developing these resources and delivering them to Earth, their safety for the Earth's biosphere (and other problems that we may not even be aware of yet). In general, however, it is clear that the colonisation of other planets is on a par with the search for eternal life in terms of its feasibility at *this* stage of our civilisation's development. This ideology is cultivated by the congregation of "immortalists", which aims to achieve artificial immortality. Transhumanist discourse is related to the topic of exploring extraterrestrial spaces (Farman, 2013; Halapsis, 2019). Assessing the prospects for radical changes in the human body, some researchers note: It is not just the further development of medicine and the sciences related to it, but a fundamental turn in the look at the person him/herself, the essence of which is the transition from human-as-integrity to a modular human. The new episteme surprisingly merges with the mechanical worldview of the Cartesian era. Moreover, in some ways it is even more radical than the old mechanicalism, because the latter never took its own image of human as a "machine" too seriously. This image helped to form ideas about the human body, about its structure and functions, but it by no means assumed that the same actions can be performed with the human body as with the mechanisms. For mechanicalism, it was just an analogy; for a new episteme, the image of the machine turns into a task that is already partially solved (Halapsis, 2019, p. 81). Much will also depend on progress in creating more advanced artificial intelligence. Progress in this area has been interpreted in various ways in a number of recent publications (Stezhko & Khmil, 2023; Stovpets, 2024; Stovpets et al., 2023).

The author believes that the above arguments and counter-arguments regarding active space *exploration* are sufficient justification for the relevance of this study. However, the existing contradictions encourage us to elaborate on the *philosophical-anthropological* facets of modern space exploration activities, with an attempt to identify the main contradictions and possible points of consensus along the way.

Philosophical-Anthropological Component in Space Exploration Activities

An analysis of a number of publications (Anderson et al., 2019; Klinger, 2021a, 2021b; Kramer, 2017) shows that the scientific community is quite clearly aware of the inextricable link between human well-being, modern space geopolitics, space resource economy and environmental issues. Moreover, the latter is seen as a special reality that now goes beyond the usual geophysical framework. The cultural, legal, budgetary, infrastructural, logistical and other processes that drive the modern space race have noticeable environmental footprints that can be measured not only on Earth but also in outer space. Its expected transformation into an "anthroposphere" is likely to proceed in a similar way to that of planet Earth in the current geological epoch, called the *Holocene*.

The Anthropocene's geology may be Earth centered, but social groups are investing in broadening what counts as the scope and scale of the human environment beyond Earth. Today, given increasing artificial satellite "crowding" of Earth's exosphere and intensifying national space agency expansions of remote sensing technologies into extraterrestrial nature, the solar system has become an ecosystemic assemblage with an environmental history and political ecology (Olson & Messeri, 2015, p. 38)

It will be equally interesting to look at the specific methodology used by anthropologists in their work in cooperation with astronautics. It is known that a certain number of social anthro-

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pologists work under contract with NASA and conduct so-called *"thick description" of the boundaries and laws of privacy* on the space station. The term "thick description" was coined by an American anthropologist and sociologist named C. Geertz, who is considered the founder of the field of symbolic-interpretive anthropology. Thick description means the maximum possible detail of observation in order to determine the context of each human action. Based on the specifics of this study, the *method of thick description* will strive to identify every movement, every mimetic gesture of an astronaut, who, say, is in a spacesuit, as accurately as possible. This area of anthropology is of the opinion that any human gesture can have different interpretations depending on the professional, highly specialised language (Geertz, 2017).

Social anthropology, in conjunction with psychology, provides more opportunities to understand the actions of astronauts in the confined space of the space station (Bazaluk, 2023a). After all, astronautics is not only a scientific and technological process, but also *a complex art of interaction between people* (often belonging to different nations, religious traditions, age groups, different language and cultural communities, as in the case of the International Space Station crews). Research in gender sociology is also adjacent to this area, given the formation of a new "space ethic" (Szocik, 2020) with an eye towards gender parity.

Anthropologists emphasise that space, as an immense and frightening space, is usually imagined as an alien place, uninhabitable. Understanding and exploration of space is likely to be mentally and psychologically easier to accept if we see a particular space body as somehow close, *familiar*, viable and almost earthly place where we could potentially be present. Alien space can be conventionally *transformed* into such a place through the practices of mapping, outlining, detailed (thick) description, visualisation, "domestication" or "placing" (Messeri, 2016).

The "domestication" of space is, for example, achieved through *double exposure* – the combination of the earthly and space planes. Anthropologists are involved in the work of the so-called Martian Station in the American desert of Utah, where specialists are looking for landscapes *similar to* Martian ones and conducting geological exploration. L. Messeri draws attention to the practice of "placing" – the transformation (in people's perceptions) of some space objects into "familiar places" that exist on Earth, and vice versa. For example, the Earth "becomes" Mars (is likened to Mars) with the help of imagination, special descriptive scripts for a particular area, and even orange glasses (Bazaluk, 2023b). This method of double exposure works in both directions: among the many images transmitted from Mars, the shots where the landscape most closely resembles real places on Earth are selected. And vice versa, to make Mars more familiar to the human "earthly mentality", they also look for Martian-like views on Earth.

In addition to the methods of thick description and double exposure mentioned above, anthropology actively uses a qualitative research method that allows for the field study of individuals in their natural environment and in everyday life circumstances – the method of "participant observation". It is hardly possible to call a person placed in a spacesuit, or on an orbital station, or in a planetary vehicle, his or her "natural state", but *in space conditions*, this state becomes necessary and "natural" for people.

Anthropologist J. Vertesi (2015) conducted her research as part of a team of specialists who control the movement of the Mars rover on the surface of Mars. The methodological basis of her research was the *method of participant observation*. It should be clarified here that controlling a rover is not an easy job. The algorithm for interacting with the rover is quite complex. It is necessary to receive images from the rover to understand where it is and what it sees, then discuss

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this information at an online conference of the Science and Operation Working Group and decide where the rover should go next and what information it needs to collect.

The cybernetic difficulties in controlling the Mars rover are that, unlike the lunar rover, the Mars rover cannot be controlled remotely in real time, with the help of direct commands from operators on Earth. This is due to a significant delay in command signals from the Earth and signals from the rover itself. The delay ranges from 4 to 21 minutes, depending on the relative position of the Earth and Mars. The delay occurs because radio signals take time to travel a considerable distance to Mars (it varies from 56 million to 401 million km) and back to Earth. Therefore, the Mars rovers have a function that allows them to act autonomously for some time, in particular, to move around the surface and carry out research according to the programmes they have been designed for, occasionally receiving new Earth commands and targets.

At the same time, the management team is guided by the Martian day, a sol, a day lasting 24 hours 39 minutes 35 seconds, and all meetings are held in accordance with Martian time. The team members (about 150 of them) are based in different countries (universities, space agencies, private companies), speak different national and discourse languages, and live in different time zones. Naturally, they have different, sometimes even polarised, views on *what* a rover should do at any given moment. Engineers would like to use the spacecraft's resources sparingly in the face of limited memory and solar panel capacity, while researchers are focused on new discoveries and would like to get as many images of the Martian terrain as possible. The most impressive views are then replicated in popular science resources to draw the attention of the general public to this ambitious project.

The socio-anthropological conclusion of J. Vertesi's study is that the effectiveness of all current Martian missions depends on the ability to develop an Earth-based consensus. Decisions are never approved by sole authority. The team is not subject to NASA's hierarchy and bureaucracy. J. Vertesi pays close attention to the practices of negotiating within an international team, to the introduction of special rules of communication between meeting participants, and to the unique practices of interaction between humans and robots. The management team and the rover become an integrated *anthropomorphic organism*. After working in the team for some time, its members acquire the skills to "see like a rover". As a result, the spectacular Martian landscapes that the rover delivers to Earth are a general scientific and humanitarian achievement. And it is the result of the fact that a system of rules, principles, preferences and priorities has been developed, inscribed in a single algorithm of cooperation between people, as well as people and space technology.

As mentioned earlier, *the space industry is changing the lives of entire countries*, and in most cases it can be a driver of social development, including a catalyst for national movements in the struggle for socio-economic rights. It seems appropriate to mention French Guiana here. This is the case when a godforsaken place where convicts were brought in the past has now become a testing ground for technological development, thanks to the location of the world-famous Kourou spaceport. French Guiana was chosen as a place for space launches for a reason: its proximity to the equator (about 500 km) and geostationary orbit significantly reduces the cost of launches, and its low population density reduces the risks in case of emergencies.

An important *cultural-anthropological* aspect here is that the construction and operation of the spaceport has changed the entire way of life of the local community: work in Kourou attracts scientific and technical specialists from all over the world. A highway called the Space Road runs through Guiana. This road is used by both the spaceport's employees and local residents of

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French Guiana. Other socially important infrastructure facilities have also emerged. However, there were also some side effects of the development: in the wake of decolonisation, the situation around the Space Road sparked a protest movement among the local population, and conflicts began to arise between the Guyanese, represented by the local administration, and the French government. Thus, the Space Road became the subject of a *terrestrial* confrontation. Now, more and more often, in order to launch a rocket into space, it is necessary to first resolve earthly contradictions here and now.

The study by P. Redfield (2000), on which we rely in the example of the Kourou spaceport, echoes the considerations of how the *mobility factor* changes the human perception of the world around us and makes its own amendments to the value hierarchy of civilisation. In this case, we are referring to the work on the *anthropological study of roads* in the broader context of mobility development (Dalakoglou & Harvey, 2012). However, *our* planet is, for the most part, already encircled by roads. Now, it seems, the time has come to build a highway that goes beyond the Earth. The vanguard of humanity has been doing this for the past half century, armed not only with physics and cybernetics, astronomy and cosmology, mathematics and computer science, microelectronics and robotics, and other obviously necessary tools, but also, as it turns out, with philosophical and social anthropology.

Originality

This study focuses on the understanding of current contradictions on the path of space exploration from a philosophical and anthropological perspective, in particular, the analysis of contradictions between technocratic, political and pragmatic, and humanistic approaches to space expansion. From a philosophic-anthropological perspective, the author focuses on understanding the current counterpoints on the path of space exploration, in particular, analyzing the contradictions between technocratic, pragmatic-political, and humanistic approaches to space expansion. Possible prospects for consensus between different worldview positions on the place and role of man in the process of space colonization are formulated. The anthropological discourse is expanded in terms of studying the possible impact of space development for human identity, existential status, and ethical guidelines of the human civilization.

Conclusions

There is something imperial and colonial in the *philosophy of space exploration*: it is a large-scale project of conquest and overcoming borders. And in this project, as in many others before it, one can discern a very "human" quality – the eternal desire of the human race to once again rise above Nature and its former selves. The study allows us to draw some conclusions about the prospects for space exploration and the main contradictions – philosophical and anthropological, ethical, political and legal, and general humanitarian content – that are already being outlined in the field of space activities.

The near-Earth space has already become an object of influence of human technologies. But so far men themselves in near-Earth space are rare, rather exceptional phenomena. Man, at this stage of space industry development, is mostly just an operator of space equipment. The constant presence of people (with their social, cultural, political, psychological and all other "human" attitudes) will probably contribute to the gradual transformation of this space into an "anthroposphere".

Humanity will have to develop a more coherent policy on the entire spectrum of space activities, starting with security, environmental issues, and space debris management. After all, the

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ability of Homo sapiens *to negotiate*, seek and find a compromise has long been regarded by anthropology as one of the key characteristics of our species.

From a *philosophical* point of view, the process of global historical development of humanity and anthropological dynamics in general can be seen as an integral part of the evolution of the Universe. It is possible that today we are approaching another bifurcation point, when the principles of further development of the socio-cultural system should be revised. And if in "earthly affairs" modern civilisation has long been accustomed to such phenomena as geopolitics, economic competition, and national ambitions, they *are also* naturally outlined on the path of space exploration. Overcoming the resulting contradictions (or significantly reducing their severity), – rethinking the historically determined global economic, political, socio-cultural, mental and psychological contradictions, with the achievement of some points of consensus – can give a kind of synergistic effect in the development of extraterrestrial spaces, providing all of humanity with both new resource reserves and new forms of mutually beneficial cooperation and specialization of labour.

It is possible that such a consensus will bring the onset of the next cultural and historical cycle closer, where changes in the nature of the processes familiar to humanity will take place. Views on the very essence of "naturalness" may even change, which inevitably leads to *changes in all current anthropological projects*. How soon this "next cycle" might begin is hardly anyone's guess today. However, it is more or less clear that its onset will actualise a situation where not only research (observation, cognition) but also pragmatic space *exploration* will become a reality. However, we believe that this reality should be preceded by a significant harmonisation of life on *our* planet. We believe that the potential here is far from being exhausted.

From a *socio-anthropological* perspective, *competition, expansion, and the desire for leadership* (whether at the interpersonal, class, or interstate levels) are also quite standard *human* qualities that have largely determined the progress of our species and given rise to the possibility of the Anthropocene. In the geopolitical projection, these qualities find an obvious continuation in the desire for global scientific, technological, economic, military, and political hegemony, for the realisation of both national psychological ambitions and utilitarian interests, for example, through the occupation of the most important "image" and real footholds on the nearest celestial bodies.

However, the general trend that can be seen in a large body of contemporary anthropological research is, in our opinion, the following: the space industry offers a chance for the emergence of a *renewed humanity* on the basis that in the face of the boundless Cosmos, all people are certainly equal. And the development of international collective efforts to deepen space research creates a certain feeling that such a distant space as outer space seems to be getting closer and closer. Its study and exploration is an important *unifying motive* for all of humanity, and it is likely that the desire for dominance will finally give way to *the much more productive qualities of Homo* that philosophical anthropology emphasises: cooperation, integration, humanisation, and an awareness of universal interdependence and collective responsibility for what happens on Earth and in outer space.

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Філософсько-антропологічні аспекти освоєння космосу: основні контрадикції та перспективи консенсусу

Мета. У цій статті автор ставить за мету провести філософсько-антропологічне дослідження перспектив освоєння космосу шляхом з'ясування низки пов'язаних питань: навіщо людству освоювати неземні простори? де ті ключові точки консенсусу, досягнення яких стане визначальними передумовами для виходу людства поза нинішні межі життєвого простору та закріплення назовні? як антропологія сьогодні допомагає в підготовці до освоєння космосу? **Теоретичний базис.** Автор взяв до уваги низку нещодавніх досліджень, що фокусують увагу на соціально-антропологічних аспектах нинішнього етапу вивчення й освоєння космосу. Особливий інтерес становлять ті специфічні соціальні техніки та описові методи, які антропологи пропонують враховувати в новітніх підходах до космічних досліджень. Серед них: метод насиченого опису (thick description method), метод подвійної експозиції (double exposure method), метод включеного спостереження (participant observation method), особливі практики "обживання", картографування, обговорювання, візуалізації тощо. **Наукова новизна.** Із філософсько-антропологічних позицій акцентовано увагу на осмисленні актуальних контрадикцій на шляху освоєння космосу, зокрема проведено аналіз суперечностей між технократичним, політико-прагматичним та гуманістичним підходами до космічної експансії. Сформульовано можливі перспективи консенсусу між різними світоглядними позиціями щодо місця та ролі людини в процесі колонізації космосу. Розширено антропологічний дискурс у частині дослідження можливого впливу космічної експансії на ідентичність людини, її екзистенційний статус та етичні орієнтири загальнолюдської цивілізації. **Висновки.** Найближчий навколоземний простір уже сьогодні став об'єктом впливу з боку людських технологій. Але поки що сама людина в навколоземному просторі – явище рідкісне, найвірогідніше, виняткове. Людина на сучасному етапі розвитку космічної індустрії здебільшого – просто оператор космічної техніки. Постійна ж присутність тут людей (з їхніми соціальними, культурними, політичними, психологічними та іншими "людськими" настановами) сприятиме поступовій трансформації цього простору в "антропосферу".

Ключові слова: людина; антропосфера; космос; технології; конкуренція; кооперація; експансія; антропоцен

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