

Synonymy of Art History Terms: Synonyms, Variants or Competitors for a Place in the System¹

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Abstract. The relevance of this study lies in its exploration of the problem of the development of the semantics of the term using the example of synonymy in the framework of the modern terminology of art history. The article is focused on three synonymous units: *astronomical art*, *cosmic art*, and *space art*. These lexical units arouse interest as, on the one hand, they claim the status of art history terms, and on the other hand, they are synonymous with each other, which contradicts the requirements for the term system. Revealing the features of the semantics and functioning of these units, and thus tracking the semantic processes that accompany their becoming terms, the authors aim to establish the features of synonymous lexical units in the phase of their formation as terms. The study was carried out according to the case study method, using techniques of definitional analysis, componential analysis, semasiological analysis and contextual analysis, as well as elements of chain and corpus analysis. The research material consists of specialized thematic dictionaries of art history terminology, as well as articles on art history. The concepts under consideration represent an interesting case of the formation of a term and the assignment of an appropriate semantic volume to it. Despite the fact that, initially, *astronomical art*, *cosmic art*, and *space art* entered professional communication as synonyms, they are already breaking out of the scope of synonymy, as evidenced by their functioning in special texts: the concept of *cosmic art* is wider in meaning than *space art*, while, according to some sources, *astronomical art* and *space art* are in a hyper-hyponymic relationship.

Keywords: term, terminology, art history terminological system, variability, synonymy, terminological status

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The significance of this work consists in the study of the semantic processes and trends that accompany the method of assigning terms to or naming lexical units. This is a wide-ranging problem within which it is also worth addressing the issue of the development of synonymy as a semantic phenomenon that is undesirable for the scientific terminological system. This study focuses on the terminology of art history. The case we are looking at consists of three correlating lexical units: *astronomical art*, *cosmic art* and *space art*, which lay claim to the status of terms used in art history. Solving problems that aim to identify the semantics and features of the functioning of the lexical units *astronomical art*, *cosmic art* and *space art* in art history texts, as well as to determine the degree to which these concepts correspond to their terminological status, will allow us to determine their place in the system of art history. The purpose of this is to establish the features of the existence of synonymous units within the terminological system in the process of assigning terms to or naming them.

The concept of the word “term” has been the focus of attention of terminologists for some time now (Vinokur 1939; Golovin 1987; Kobrin 1981; Leichik 2001; Leychik 2006; Lotte 1931; Superanskaya, Podolskaya, Vasilyeva 1985 and others), and not without good reason. Despite the current lack of a single generally accepted definition of this concept, most researchers limit the scope of its functioning to the scientific or professional sphere – that is, it is a language used for special purposes. At the same time, the absence of synonyms is listed among the basic criteria of terminology formulated by Dmitri Lotte and Sergey Grinev-Grinevich, which allows us to separate terms from non-terms (Grinev-Grinevich 2008; Lotte 1931). The relevance of the criterion “absence of synonyms” is down to the fact that the main function of a “term” is to serve as an accurate designation of a scientific concept.

However, looking at dictionaries of art history terminology points to a process that is in conflict with the above criterion (Ivanova, Gapienko 2021). We are referring to the synonymy that is quite evidently presented in it, as evidenced by the data contained in explanatory dictionaries. In the course of this study, a hypothesis was put forward that attempts to explain this state of affairs: the spontaneous emergence of neologisms based on the rapidly developing scientific language of art criticism leads to the formation of terminological units that have a common denotation. However, as they are adopted into the language, the terms become conceptually delimited in terms of their semantic meanings. At the same time, these changes are not reflected fast enough in explanatory dictionaries, as they cannot keep pace with the changes taking place in the language. However, contextual usage indicates a tendency to delineate the semantics of terminological units that were originally synonymous.

Research methods and materials

Along with general scientific methods (observation of linguistic material, analysis, synthesis, comparison and correlation), we also employed relevant linguistic methods to solve the tasks at hand: definitional, semasiological, component and contextual analysis; as well as elements of chain and corpus analysis. Component analysis was used to establish a list of semes that describe the semantic structure of the lexical units *astronomical art*, *cosmic art* and *space art*. Definitional, semasiological and chain analysis allowed us to determine the semantic volumes of the lexical units under consideration, confirm or refute their synonymy, and delimit the scope of their application in special-purpose language. Corpus analysis helped us quantify the frequency with which the terms *astronomical art*, *cosmic art* and *space art* are used and identify the features of their use. The specificity of the functioning of these lexical units in special-purpose language was determined within the framework of contextual analysis. The present work is effectively a case study, since the case method allows you to analyse the entire situation in detail as a real communicative phenomenon in a natural environment (Leontovich 2011: 42–45).

For this study, we used a specialized dictionary of English art terminology, *The Concise Oxford Dictionary of Art Terms*, as well as modern explanatory dictionaries of the English language and articles on the concepts considered in this paper.

Conceptual foundation of the study

As we know, the negative impact of synonymy in the field of terminology boils down to the return of a lexical unit to its pre-terminological status, which prevents it from being fixed in the terminological system of a given scientific discipline, violating the orderliness of its conceptual apparatus, since terminological synonymy contradicts the statement “one concept – one term” (Taranova, Bubyreva, Taranov 2012: 56). At the same time, the specific features of the content of the very concept of the word “term” and its difference from “non-terms” still gives rise to disputes within the expert community. It should be noted here that most experts in Russian terminology limit the scope of functioning of the word “term” to a certain scientific or professional field of knowledge. For example, Vladimir Leichik insists that the term “... is a lexical unit of a given language for special purposes, denoting a general – concrete or abstract – concept of the theory of a certain special field of knowledge or activity” (Leichik 2006: 96).

Elena Golovanova also defines the term as an integral part of specialized knowledge, a manifestation of professional thinking, and an element of professional communication: “the term implements the mechanisms of cognition of a special field of knowledge or activity, it represents the structures of special knowledge, which serve as a starting point in understanding the professional space and contribute to the optimal organization of expert activities” (Golovanova 2008: 51–52). “As a logical-linguistic

category, terms are an integral part of professional communication at any stage of its development” (Ibid: 52). Accordingly, the existence of professional knowledge as such is inconceivable without terms (Golovanova 2011).

As quanta of professional knowledge, terms must meet certain criteria. For example, defining terms as “special words limited to their special purpose; words that tend to be unambiguous, acting as an exact expression of concepts and a way to name things”, Alexander Reformatskiy emphasizes the need to comply with such semantic properties of the term as exactness and unambiguity (Reformatskiy 1967: 110). Additionally, they must satisfy such requirements as limited scope of use and systematic formation (Reformatskiy 1986: 165–166). At the same time, Dmitri Lotte highlights the correlation with the scientific discipline at hand, consistency, stylistic neutrality, contextual independence, the existence of a word-building function, the lack of synonyms, and brevity as essential properties of the term (Lotte 1931). Sergey Grinev-Grinevich’s list of requirements for the meaning of the term largely repeats that of Lotte, with some additions: unambiguity, meaningfulness, the lack of synonyms, and consistency of semantics.

From the point of view of form, terms must comply with the norms of the language, demonstrate elements of consistency, lexical and formal conciseness, invariance, motivation and derivational ability. The functional criteria of terminology include commonality, frequency of use, contemporaneity, level of adoption, internationality, as well as esotericism and harmony (Grinev-Grinevich 2008: 36). One of the arguments for why synonymy and terminology are incompatible is that the former is unnatural for the latter, since the language of science is devoid of any kind of emotionality. Accordingly, terminology only allows doublets (Tolikina 1971).

Despite the fact that a number of researchers consider synonymy undesirable for terms, or even deny that it exists in scientific language, this semantic property is indeed evident in terminology (Zubchenko 1982). At the same time, some experts recognize the positive impact of this semantic phenomenon on scientific language. Ekaterina Kortun defines synonymy as a special type of semantic relations, where terminological units denoting the same special concept are able to convey differences in emotional or stylistic colouring and compatibility with other terminological units, and express various additional features (Kobrin 1981: 36). L. N. Rusinova points to two factors that justify the existence of synonymy in special-purpose language: 1) synonymous terms can express different aspects of a single scientific concept, thus greatly simplifying their functioning in professional communication; and 2) synonymy is useful for counteracting the dullness and monotony of scientific language (Rusinova 1985). Even if we subject scientific terminology to ordering, eliminating synonymy, this would weaken the functioning of terms that do not have this semantic property, while the terminology itself will not become more perfect. At the same time, Valery Danilenko ascribes synonymy to a manifestation of the natural laws of language (Danilenko 1972: 76). Meanwhile, Viktor Tatarinov notes that the ability of synonymous terms to highlight individual features of the same special concept is necessary for the development of

scientific language (Tatarinov 2006: 172–173). Opining on the admissibility of the existence of synonymy in scientific terminology, researchers believe that synonymous terms undergo a process of natural selection in the course of their usage, which results in one of the options becoming the most preferable – and thus the only – term in professional communication (Taranova, Bubyreva, Taranov 2016).

Thus, in the field of terminology, synonymy is a natural result of the development of a special-purpose language, and a natural manifestation of one of the laws of dialectics about the unity and struggle of opposites. The terminology of art history is a clear example of the coexistence of lexical units that serve to designate a single concept. This article focuses on the lexical units astronomical art, cosmic art and space art, which are used interchangeably in the scientific literature. Based on the theoretical premises outlined above, it would seem that we need to consider the admissibility of these lexical units coexisting with one another, establishing the degree of their synonymy and the possible advantages of their simultaneous functioning.

Research results

While, according to the British National Corpus (BNC), British English does not contain any mention of the terms *astronomical art*, *cosmic art* or *space art*, the term space art be found in American English, as the Corpus of Contemporary American English proves. Since 1993, the lexical unit *space art* has been used in publications on space: “Michael Carroll is a frequent contributor of space art and articles to *Astronomy*”². Or: “Projects to launch cremated human remains in shiny cylinders, ‘space art’ large balloons to celebrate some “occasion”³; “... bestselling book *The Conquest of Space*, has been called the best-known work of space art ever created”⁴. The corpus also contains information about representatives of this contemporary artform: “I love this sort of imaginative space art and there’s a few people such as Lynette R. Cook and David Hardy and even a friend of mine named Gail Glasper whose artworks are absolutely inspirational and splendid”⁵. Thus, the first mention of space art is in relation to popular science literature. In the 2010s, the understanding of this term expanded to include artists working in this area of contemporary art.

These examples do not exhaust the semantic volume of the term *space art*, however. That said, the specifics of the concepts of *astronomical art* and *cosmic art* have not been fully revealed either. In order to determine the differences in the semantic volume of these synonymous concepts, a component analysis is required. The terms

² Carroll M. 1993. Mars: The Russians are Going! The Russians are Going! *Astronomy*. 21(10). P. 26–33.

³ Andersen J. 2000. Discover the International Astronomical Union. Jan/Feb 2000. 29 (1). P. 32.

⁴ Carroll M. 2014. *Living among giants: exploring and settling the outer solar system*. Springer.

⁵ Plait P. 2012. Kepler Finds a Planet in a Binary Star’s Habitable Zone. *Discover*. 30.08.2012. URL: <https://www.discovermagazine.com/the-sciences/kepler-finds-a-planet-in-a-binary-stars-habitable-zone> (accessed 27.08.2022).

astronomical art, *cosmic art* и *space art* are formed by building the relevant lexemes. Presumably, the initial definitions of the semes *astronomical*, *cosmic* and *space* allow us to establish their ability to function in a special-purpose language.

Merriam-Webster's online dictionary lists two definitions for the word *astronomical*. The first definition is connected to the concept of *astronomy*: "of or relating to astronomy (astronomical observations)". The adjective is also used to describe an object: "enormously or inconceivably large or great (astronomical numbers, astronomical price)"⁶. For the purposes of this study, we will *astronomical* in the first meaning, to refer to the concept of *astronomy*. Merriam-Webster's defines astronomy as "the study of objects and matter outside the earth's atmosphere and of their physical and chemical properties"⁷. While it is not explicitly stated that this concept belongs to a scientific discipline, *astronomy* demonstrates properties that make it a specialized term, such as motivation, unambiguity, correlation with a scientific discipline, accuracy, and compliance with the norms of language.

The adjective *cosmic* has many meanings. Like the lexeme *astronomical*, in accordance with the first meaning listed by Merriam Webster's, *cosmic* corresponds to the single-root noun *cosmos*: "of or relating to the cosmos, the extraterrestrial vastness, or the universe in contrast to the earth alone (cosmic radiation)". A subtype of the first meaning of the adjective *cosmic* also includes the metaphysical component of this concept: "of, relating to, or concerned with abstract spiritual or metaphysical ideas (cosmic wisdom)". The second meaning is not directly related to the concept *cosmos*: "characterized by greatness especially in extent, intensity, or comprehensiveness (a cosmic thinker, a book of cosmic significance)"⁸. We should note here that the first and second meanings of the lexeme *cosmic* correlate with both meanings of *astronomical*. Thus, these adjectives demonstrate synonymy and ambiguity. However, unlike the noun *astronomy*, the concept of *cosmos* is polysemous: (1a) "universe", (1b1) "an orderly harmonious systematic universe", (1b2) "order, harmony"; (2) "a complex orderly self-inclusive system"; (3) "any of a genus (Cosmos) of tropical American composite herbs".

Notably, the lexeme *space* does not have an adjectival form. The noun *space* has more than ten meanings – from a limitless universe to "a blank area separating words or lines"⁹. Based on the interpretation of the lexical units under consideration, we can state that the lexical unit *space* is distinguished by a far greater number of semes (see Table 1).

⁶ Merriam-Webster Dictionary. URL: <https://www.merriam-webster.com/dictionary/astronomical> (accessed 27.08.2022).

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

Table 1

**Results of the component analysis of the lexemes
astronomy, cosmos and space**

SEMANTIC COMPONENTS	LEXEMES		
	astronomy	cosmos	space
scientific discipline	+		
universe	+	+	+
order, harmony		+	
an orderly system		+	
a genus name		+	
boundlessness	+	+	+
a period of time			+
an extent in three dimensions			+
personal space			+
the distance between the lines of a musical staff			+
a blank area separating words or lines			+
a set of mathematical elements and how they are applied to a line or plane			+
the number of lines on a printed or written piece of paper			+
broadcast time			+
seats for passengers in a mode of transport			+
asserting or experiencing one's identity or needs freely			+
time to oneself			+

Thus, the lexeme space has the largest number of semes and the most developed semantic volume. At the same time, the concept of *space art* is not found in specialized thematic dictionaries of art history terminology, although it does crop up in other more generalized sources. For example, the “Alchetron, Free Social Encyclopedia for World” lists the lexical units *space art* and *astronomical art* as synonymous concepts for designating a new genre in contemporary art that are thematically focused on space and space exploration: “space art” (also “astronomical art”) is the term for a genre of modern artistic expression that strives to show the wonders of the Universe. Like other genres, space art has many facets and encompasses realism, impressionism, hardware art, sculpture, abstract imagery, even zoological art...”¹⁰. This fragment of the Alchetron definition notes both the thematic orientation of *space art* and its categorical belonging to a scientific discipline – a genre, which is important for the term as a designation of a specific and precise concept. The lexical unit also meets such

¹⁰ Alchetron, Free Social Encyclopedia for World. Space art. URL: <https://alchetron.com/Space-art> (accessed 19.08.2022).

requirements of a term as consistency, compliance with the norms of the language, lexical and formal conciseness, derivational ability, harmony, esotericism, consistency of semantics, contextual independence, generally accepted meaning, commonality, euphony, acceptance into use, internationality and in particular contemporaneity and motivation. However, given the coexistence of *space art* and *astronomical art* (with a common denotation), compliance with such terminological criteria as invariance and the absence of synonyms may prevent them from becoming terms. However, taking into account the coexistence of space art and astronomical art (with a common denotation), compliance with such terminology criteria as invariance, the absence of synonyms may prevent their terminology.

The Sensagent Dictionary makes a distinction between *space art* and *astronomical art* in its definitions of these concepts. Its definition of *space art*, for example, points to its interdisciplinary nature: “space art is a general term for art emerging from knowledge and ideas associated with outer space, both as a source of inspiration and as a means for visualizing and promoting space travel. Whatever the stylistic path, the artist is generally attempting to communicate ideas somehow related to space, often including appreciation of the infinite variety and vastness which surrounds us. In some cases, artists who consider themselves space artists use more than illustration and painting to communicate scientific discoveries or works depicting space; a new breed of space artists work directly with space flight technology and scientists as an opportunity to expand the arts, humanities and cultural expression relative to space exploration”¹¹. It should be noted that the concept of *space art*, despite its rather wordy definition, only corresponds to the definition of a “general term” as it appears in the dictionary. At the same time, there is nothing about what genre *space art* fits into. There is no indication of which category of art history as a scientific discipline this concept belongs in terms of style, direction, movement, wave, etc., which indicates that this lexical unit does not possess a property that is found in all terms – accuracy.

The Sensagent Dictionary (an online resource) thus defines the concept of *space art* not so much at the scientific level, but rather at the level of the layperson. It is possible that this lexeme only denotes a concept that is being formed in the respective special-purpose language, and which in time may obtain “official” status as a term and thus be included specialized thematic dictionaries of art history terminology. On the other hand, if the semantic volume of *space art* does not undergo any changes, and the concept remains overly abstract or too broad in its meaning, then it may never obtain the status of a term. Along with the concept of art, which *The Oxford Dictionary of Art Terms* (second edition) describes as “the most elusive of terms”¹², *space art* may lose

¹¹ Sensagent – Dictionary. Astronomical art. URL: <http://dictionary.sensagent.com/Astronomical%20art/en-en/> (accessed 18.08.2022).

¹² Clarke M., Clarke D. *The Concise Oxford Dictionary of Art Terms* (2 ed.). 2010. URL: <https://www.oxfordreference.com/view/10.1093/acref/9780199569925.001.0001/acref-9780199569922> (accessed 15.08.2022).

the possibility of becoming a term because it lacks a clear definition, is excessively abstract and has too broad a meaning (the requirements of a term as described in (Gapienko 2020)).

The Sensagent Dictionary also contains a definition of *astronomical art*, which can be described as more capacious and voluminous (it is made up of 742 words). That said, *astronomical art* is not construed as a synonym for space art in this source, but rather as a facet of this wide-ranging concept: “astronomical art is the aspect of Space art devoted to visualizing the wonders of outer space”¹³. It even gives a timeline of the creation of *astronomical art* and important figures in its development. Moreover, the definition provided by the Sensagent Dictionary highlights the scope of topics that *astronomical art* covers as a category, and even school, of art history: “Astronomical Art is the most recent of several art movements which have explored the inspirational ideas emerging from ongoing exploration of Earth, (Hudson Riverschool, or Luminism) the distant past, (ancient history and prehistoric animal art) and finally the steadily revealed universe”. Defined as such, *astronomical art* is categorized as both an art movement and an art school, which indicates the development of polysemy and eurysemy of this lexical unit. The nominals International Association of Astronomical Artists and NASA Fine Arts are examples of this. Thus, *astronomical art* refers to an established scientific concept that gives rise to nominals and also has a developed semantic volume, which, it would seem, allows a real lexical unit to become a term over time. This assumption is supported by the fact that it complies with many of the criteria that would make it a term: contemporaneity, motivation, generally accepted meaning, usability, acceptance into use, consistency, accuracy, compliance with the norms of the language, derivational ability, meaningfulness, and consistency of semantics (Grinev-Grinevich 2008: 36).

Along with *space art* and *astronomical art*, the lexical unit *cosmic art* is also used in the field of art history. The website of the Cosmic Art Research Committee notes that no distinction is currently made between the concepts of *cosmic art* and *space art*, although cosmic art should be considered in a broader sense as the embodiment of the idea of universal harmony: “cosmic art and space art are still not specifically differentiated, and their meanings vary since the early twentieth century. Therefore, regarding the notion that the cosmos implies beauty and order in its original meaning in ancient Greek, we use the term ‘cosmic art’ to broaden the idea of ‘space art’, which refers to outer space in general”. At the same time, *cosmic art* cannot be attributed to a specific category of art history, since the concept should be interpreted in general terms as an idea for creativity: “cosmic art is not merely a classification of the arts, but is the idea to create an artistic way of life. It is the idea that will lead you to a cosmic sphere to find both universality and particularity in anything”¹⁴. Thus, *cosmic art* is based on philo-

¹³ Sensagent – Dictionary. Astronomical art. URL: <http://dictionary.sensagent.com/Astronomical%20art/en-en/> (accessed 18.08.2022).

¹⁴ Cosmic Art. URL: <http://cosmicart.org/cosmic-art/> (accessed 27.08.2022).

sophical, rather than art history, considerations. For this reason, the lexical unit can be characterized as far too wide-reaching an abstract in meaning, which also complicates the process of it hypothetically becoming a term in its own right.

As we can see from the above, our analysis of the various interpretations of *astronomical art*, *space art* and *cosmic art* in modern online dictionaries allows us to posit that these concepts are correlated in terms of their semantic volume and, depending on the context, can function as synonyms. That said, it is difficult to identify specific features of their synonymous relations, since the difference in their denotations is uneven across the various sources. At the same time, when it comes to functional use, these lexical units can be employed in a context that is different from the dictionary definitions (which may also affect the process of their becoming terms or, conversely, go beyond the special-purpose scope of the words). Studying the features of the use of these concepts in context will likely allow us to determine their development vector, which will affect their semantic volume.

For example, in the article “Space Artists Go Where the Cameras Can’t”¹⁵, the artist Ron Miller, who considers himself a *space artist*, believes that, in addition to relying on scientific developments in the field of space exploration, artists also use their own imaginations to create space art. This type of art is thus characterized as a “mixture of knowledge and imagination”, which is generally in line with the above interpretations of the concept of *space art*. Even so, we can point to at least two schools that have at least a passing connection to *space art*: Rock and Ball и Swirly. Based on this context of use, *space art* is a more specific and meaningful concept than long-winded description given in the Sensagent Dictionary, since it includes at least two schools. Other contexts for the use of *space art*¹⁶ suggest that the question of its categorical affiliation (school or style) in the scientific language of art history remains open.

Another thing that we should note is that *space art* is also subject to politicization: “as the space race progressed, it was inevitable that space art became politicized”. At the same time, in an article entitled “Soviet Space Art. Posters of Propaganda and Progress” that appeared in *Daily Art Magazine*, Marta Wiktoria Bryll effectively separates Soviet Space Art into a category of its own¹⁷. In an issue of *The Guardian* online, Soviet space art functions as an independent unit of special-purpose language. The article “Behind the Iron Curtain, the Final Frontier: Soviet Space Art – In Pictures” also uses *Soviet Space Graphics and Soviet space illustrations*¹⁸. Thus, Soviet space art is

¹⁵ Tedeschi D. 2015. Space Artists Go Where the Cameras Can’t. *Smithsonian* magazine. 23.09.2015. URL: <https://www.smithsonianmag.com/air-space-magazine/astronomical-beauty-180956711/> (accessed 26.08.2022).

¹⁶ Medrano K. 2017. The Art of Space Art. *The Paris Review*. 14.09.2017. URL: <https://www.theparisreview.org/blog/2017/09/14/the-art-of-space-art/> (accessed 26.08.2022).

¹⁷ Bryll M.W. 2023. Soviet Space Art. Posters of Propaganda and Progress. *The Daily Art Magazine*. 4.02.2023. URL: <https://www.dailyartmagazine.com/soviet-space-posters/> (accessed 20.10.2023).

¹⁸ Morris K. 2020. Behind the iron curtain, the final frontier: Soviet space art – in pictures. *The Guardian*. 04.04.2020. URL: <https://www.theguardian.com/artanddesign/gallery/2020/apr/04/behind-the-iron-curtain-the-final-frontier-soviet-space-art-in-pictures> (accessed 27.08.2022).

seen as a separate variety of *space art*. This definition also makes reference to NASA, which has been actively involved with art since 1962, when it commissioned a series of portraits of astronauts as part of the NASA Art Program run by a NASA research centre (the idea was to record the scientific discoveries of the past and predict future breakthroughs, as well as to capture the emotion of space exploration)¹⁹. In addition to the NASA Art Program, the official NASA website also includes lexical units related to special-purpose language used in art history, including *space craft*, the *Smithsonian National Air and Space Museum* (where, among other things, works of art are exhibited), *NASA Space Place Art Challenge* and *Space Place art challenge* (nominals for new art programmes that support NASA activities). Two lexical units of modern art history terminology emerged as a result of the politicization of space art: *Soviet space art* on the one hand, and *NASA Space Place Art Challenge* and *Space Place art challenge* on the other²⁰. This process both reflects the usability and implementability of space art and proves its derivational ability.

Ron Miller, a writer and illustrator who serves as Acting Director for the National Air and Space Museum's Albert Einstein Planetarium, uses the lexical units *astronomical art* and *space art* as synonyms: "while not the first artist to specialize in astronomical art, Chesley Bonestell raised space art to the level of fine art"²¹. *Astronomical art* and *space art* are also used interchangeably in the book *The Beauty of Space Art: An Illustrated Journey Through the Cosmos*, where *space art* is referred to as the *space art genre*, which encompasses such styles and techniques as Rocks&Balls, Hardware Art, Swirly Art, and Three-Dimensional Space Art²². At the same time, the international community of artists working in the space art genre called themselves the "International Association of Astronomical Artists", or IAAA²³. However, unlike *space art*, *astronomical art* does not have a pronounced potential to become a term.

In addition to *astronomical art* and *space art*, the words *cosmic art* can often be heard today. For example, in the article "Far Out! These 5 Cosmic Art Projects Prove That Outer Space Is the Next Avant-Garde Frontier", this concept functions as a synonym for *space art*. Notably, the lexical unit *space art* carries greater terminological potential in this article: the concepts of *space-centric art* and botanical art in outer space by the contemporary Japanese florist Makoto Azuma also serve a function in the text²⁴. The lexeme cosmic is also mentioned as part of the two-syllable concept of *cosmic expressionism* as a subgenre of *space art* (Ramer, Miller 2021). We might dare to

¹⁹ Hotovy H. 2017. NASA and Art: A Collaboration Colored with History. NASA. URL: <https://www.nasa.gov/feature/nasa-and-art-a-collaboration-colored-with-history> (accessed 28.08.2022).

²⁰ NASA Space Place Art Challenge. URL: <https://spaceplace.nasa.gov/art-challenge/en/> (accessed 28.08.2022).

²¹ Miller R. Timeline: Early Space Art. Princeton University Art Museum. URL: <https://artmuseum.princeton.edu/transient-effects/painter-sun/northern-lights-and-worlds-beyond/imagining-un-seeable-early-space-artists%E2%80%9494-time-line/timeline-early-space-art> (accessed 27.08.2022).

²² Ramer J., Miller R. (eds.). 2021. *The Beauty of Space Art: An Illustrated Journey Through the Cosmos*. Springer, 2nd ed.

²³ International Association of Astronomical Artists. URL: <https://iaaa.org/> (accessed 27.08.2022).

²⁴ Nunes A. 2019. Far Out! These 5 Cosmic Art Projects Prove that Outer Space is the Next Avant-Garde Frontier. *The Artnet News*. 12.02.2019. URL: <https://news.artnet.com/art-world/art-outer-space-1462288> (accessed 29.08.2022).

suggest that, since *cosmic expressionism* denotes an exact and specific concept within special-purpose language, it may eventually be included in specialized thematic dictionaries of art history terminology. The lexeme *cosmic* can be found in an article by *The Guardian* journalist Jonathan Jones entitled “Space invaders, cosmic exhibitions, and a show down with Amazon – the week in art” in the phrases *cosmic exhibitions* and *cosmic experience*²⁵. Whether or not these concepts will become terms is up in the air right now, but the lexeme *cosmic* has enough lexical and creative potential on its own to continue to function in art history terminology.

In terms of the scientific terminology of art history, our analysis allows us to identify such semes as type of contemporary fine art, style, direction, school and concept (see Table 2).

Table 2

The semes astronomical art, cosmic art and space art, isolated on the basis of the category of art history

	Type of contemporary fine art	Style	Direction	School	Concept
Astronomical art	+	+	+	+	
Cosmic art	+				+
Space art	+	+	+		

Obviously, *astronomical art* and *space art* encompass a larger number of categories of art history (as a scientific discipline), which may explain how they quickly became adopted as terms.

Our analysis thus shows that the terminological unit *space art* most commonly appears as part of the special-purpose language. The concept is used more frequently and has derivational and terminological potential. *Cosmic art* does demonstrate similar qualities, but to a lesser extent. Meanwhile, *astronomical art* is usually equivalent to *space art*. At the same time, all of these concepts coexist harmoniously and complement each other as synonyms, enriching the terminology of art history as a whole.

Conclusions and takeaways

The use of modern explanatory dictionaries has allowed us to posit that, among the synonymous lexical units *astronomical art*, *cosmic art* and *space art*, the concept of *astronomical art* currently has the most developed semantic volume. What makes the synonymous unit of *space art* unique is the eurysemism and greater abstractness of

²⁵ Jones J. 2022. Space Invaders, Cosmic Exhibitions, and a Showdown with Amazon – the Week in Art. *The Guardian*. 4.02.2022. URL: <https://www.theguardian.com/artanddesign/2022/feb/04/space-invaders-amazon-suzanne-jackson-black-ceramics-the-week-in-art> (accessed 27.08.2022).

its meaning. Meanwhile, *cosmic art* does not have a well-defined interpretation – the phrase came about as a separate creative association and is used in the broad sense to denote a sense of beauty and harmony on the scale of the universe (which is a departure from the original idea of *space art*). At the same time, in professional communications, astronomical art, cosmic art and space art are used synonymously. Each lexical unit satisfies such criteria as implementability and usability. In terms of functional use, all three concepts organically “coexist” with one another (including as synonyms within the same source text). What is more, *space art* and *cosmic art* demonstrate significant derivational ability and terminological potential. We can thus conclude from our study that *astronomical art*, *cosmic art* and *space art* have become fixed in a special-purpose language, but their semantics continue to form.

Accordingly, the case we have looked at, which encompasses three related concepts in art history, points to conflicting trends that describe the existence and functioning of synonymous terminological units in the phase of their formation. First, we can observe in this example how lexical units acquire and subsequently strengthen their terminological status when they are included in professional communication. At the same time, the lack of an unambiguous and universally recognized definition allows them to be used relatively freely within professional communication at the current stage. Second, despite this, the process of acquiring the status of a term is accompanied by a delimitation of the semantic volumes of these synonymous units. Third, the fact that they have not yet achieved the status of terms means that these units demonstrate a semantic volume in their functional use that is different from that indicated in specialized thematic dictionaries. Thus, even within the discipline itself, they can still manifest themselves quite unpredictably.

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Conflicts of interest.

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