

Kinetic Art: The Leningrad Experience, the 1920s–1990s*

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Kinetic works of Leningrad artists have never been studied as a separate topic. In 1965–1967, kinetic art broke into the Leningrad art scene with bright projects of a Moscow artist collective called “Dvizhenie” (“the Movement”). Soon, several young Leningrad artists became active members of the collective. At the beginning of the 1970s, the impulse given by the “Dvizhenie” led to the formation of an independent Leningrad art collective which worked on color music kinetic art performances but broke up short afterwards. Is it possible to talk about some kind of a separate Leningrad branch of kineticism? Leningrad artists whose works in the 1960s, the 1970s and later periods were related to the kinetic art perspective, and even explicitly aligned with it, did not identify themselves with kineticism. Even in the 2010s, no one talked about kineticism in connection with some exhibitions in Saint Petersburg which presented completely kinetic works of art. Today, in the wake of the growing interest in this movement in Russia in the context of recent exhibitions, the concept of kineticism has expanded to include new names. The article considers activities of Leningrad artists associated with this art movement in the field of theatrical kinetic performances (the “Dynamic” collective), three-dimensional counter-relief objects (L. Borisov), color light music and paintings visualizing music (V. Afanasyev), and architectural design / color light music projects (A. Lanin). The study also traces parallels between proto-kinetic works of Leningrad avant-garde of the 1910s–1920s, and works of Leningrad kinetic artists of the 1960s–1970s.

Keywords: kinetic art, color music, synthesis of arts, Alexander Grigoryev, Natalya Procuratova, Georgy Antonov, Valentin Afanasyev, Leonid Borisov, August Lanin.

Kinetic art is art that puts at the forefront the idea of motion, different transformations of an object at the moment of its perception by a spectator. The movement originated in Western and Eastern Europe and Latin America in the 1950s. A little later, op art was formed as a separate movement which concentrated on experiments with optical illusion of motion. Op art works soon became part of kinetic art — the single phenomenon of an “optical kinetic art” [1–3; 4, p. 417–22;]. Analytical studies, learning and conceptualization of the kinetic art experience started as early as in the 1960s — works of academics and practitioners of this movement such as F. Popper and N. Schöffler are still relevant today, both in terms of shaping kinetic art and in historical record [5–8]. In the USSR, kinetic art, although then still free of this title, emerged at the turn of the 1950s–1960s in the wake of

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the general enthusiasm for a new space age, fascination by concepts of scientific and technological progress, and opportunities for a synthesis of art, science and technology. Young Moscow artists who united around their leader L. Nusberg in 1962 became the pioneers of Soviet kinetic art. By 1964, the community formed into the “Dvizhenie” collective. It was around the same time when thanks to Dushan Konechny¹, the Chezh art historian, the term “kineticism” became part of the art collective members’ vocabulary.

A small volume by V. Koleichuk published in 1994, “Kineticism”, remains a reference work on kinetic art in Russian language [9]. According to the art critic A. Tolstova [10], it is “not as much an art history monograph as a multi-page manifesto” by one of the leaders of Soviet kinetic art. “Kineticism” was preceded by a collection of guidance materials released in 1989 by the All-Union Research Institute of Technical Aesthetics (VNIITE) “Dynamic and Kinetic Form in Design”. V. Koleichuk participated actively in its creation, together with S. Khan-Magomedov, A. Lavrentyev and I. Racheeva [11]. Both works played a determinative role in shaping the modern approach to the perception of Russian kinetic art. Firstly, kinetic trends in Soviet art of the 1960s and later are placed there within the broad context of development of the idea of motion in world artistic culture, from ancient times to the present day. Secondly, Soviet kinetic art of the second half of the 20th century is presented as a logical continuation of the 1910s–1920s avant-garde: series of experiments in the 1950s–1960s “refined the formulation and study of the concepts and ideas connected with kinetic form introduced in the 20s” [9, p. 17]. Today this genealogy built by kinetic artists themselves, as one of their brightest representatives A. Grigoryev interprets it, seems to be beyond question: “Kinetic art was born in the 1920s–1930s, Vladimir Tatlin, Naum Gabo and Alexander Rodchenko are considered as its forerunners” [12]. The majority of the authors who write about kinetic art in Russia today accept the same point of view: artistic events at the turn of the 1950s–1960s are considered “through the prism of avant-garde art, the development of which was put on hold all the way to the end of the 50s. <...> Precisely at that time <...> separate ideas that emerged in the 20s add up to coherent concepts” [13, p. 28]. However, the actual process of interaction between Soviet artists of the 1960s and Russian avant-garde, then hidden in museum storerooms and known rather fragmentarily, was complex, dramatic and very individualized. (On the dangers of approaching kineticism from a historical perspective and complexities of its relationship with the avant-garde, see, in particular [14]). The continuity evident today is not necessarily explained by any real knowledge of specific names, or the impact of specific works of art. At its best, Soviet kinetic art inherited not so much forms of the avant-garde as conscious or unconscious gravitation towards the same set of scientific and philosophical metaphysical questions that opened new horizons in art at the turn of the 19th–20th centuries that both symbolist and avant-garde artists were concerned about.

Art of the 20th century began with dissemination and popularization of ideas about the multidimensionality of the world and the existence of a fourth dimension, regardless of the way or form by which these ideas entered the artists’ minds: through works of the American mathematician and writer C. Hinton; through Gleizes and Metzinger’s book “On Cubism”; through A. Einstein’s theory of general relativity, and especially, through H. Minkowski’s geometry, which for the first time presented the four-dimensionality of the world as a unity of space and time; through new occult philosophical movements —

¹ Dushan Konechny (1928–1983) is an art historian. From 1949 to 1954, he studied at the Lomonosov Moscow State University at the Art History Department. Head editor of the “Výtvarné umění” magazine.

theosophy and, later, anthroposophy, by Rudolf Steiner; from works by the Russian theosophist and mathematician P. Ouspensky, especially, the book “Tertium Organum” (“the third organ”) (see [15–17] in relation to this topic. On the influence of scientific and philosophical theories in the beginning of the 20th century on N. Gabo’s kinetic art see [18]).

The idea of the world’s multidimensionality and permeability, of the unity of space and time, overturned the traditional perception of possibilities and tasks of various arts and questioned the boundaries between spatial and temporal arts, which since the times of Lessing’s “Laokoon” (1766) and up to the end of 19th century seemed difficult to overcome. A phenomenon of synesthesia and synopsis attracted particular attention. Boundaries within arts also got broken: musicians discovered new principles of harmony, new sound “textures” — making it possible to understand music as a special “substance”. Painters placed focus on conveying motion (that is, time), stepped out into the three-dimensional space and mastered new tools — not only color but also light became the artist’s material to work with. The idea of the synthesis of all arts acquired a great importance. In line with these concepts, A. N. Scriabin’s spiritual and creative experience should be mentioned, in particular, his vision of the “Mysterium” and the symphonic poem “Prometheus” with the part for color light. In the second half of the 20th century, the same ideas captured imagination of artists, musicians and scientists of the post-war generation. The part for the light (“Luce”) from Scriabin’s “Prometheus” was the starting point for nearly every Russian artist who experimented with boundaries between arts, from 1920s, through 1960s, 1980s and to the beginning of a new century (see the studies by I. Vanechkina and B. Galeev on synesthesia and Scriabin’s “Prometheus” [19–21]). As contemporary researchers state, “synesthetic perspectives in art repeatedly attracted attention of humanities in the last century, and the interest is evidently on the rise at the beginning of this century” [22, p. 7]. The topic of “heredity” or “succession” of Soviet kinetic art from Russian avant-garde is a significant problem of today that accentuates the question of broadcasting and development of scientific and philosophical concepts, rather than issues of stylistics or formal language. This encourages more nuanced studies of unique creative paths of individual artists. (In this regard, reasoning of Francisco Infante, one of the most significant representatives of Soviet kinetic art, is noteworthy. He states that his art “did not originate from within the culture, I knew little then” but from his fascination by the concept of infinity. “If you don’t have the metaphysical sense, then it makes no sense to work with abstract forms because they don’t correspond to you, they are rented as something external, an imitation of something” [23].)

Kinetic art is “one of the most important and at the same time the least studied movements in the history of Russian art of the second half of the 20th century”, according to Iu. Aksenova, the curator of the “Future Lab: Kinetic Art in Russia” exhibition [24, p. 35]. There are several reasons why kinetic art has been understudied. In Russian art history, national kinetic art has been traditionally considered as part of the underground culture, the non-conformist art of the 1960s–1970s, as S. Obukhova, the curator of the “Garage” archive writes [25]. At the same time, kinetic art turned out to be a marginal topic for those researching unofficial Soviet art since kinetic artists were more interested in questions of form rather than ideology. They often showed clear conformism to authority, striving to implement their projects [26, p. 152–9]. The only unofficial art movement that developed nearly synchronously to the international art process, kinetic art has for a long time been regarded as a minor phenomenon by researchers. In the well-known study in

the history of art, “Art Since 1900”, just a small chapter is devoted to kinetic art, which mainly speaks about Western European artists, while kinetic artists of Eastern Europe and the existence of kinetic art trends in Moscow receive only a brief mention [4, p. 419] (on art critics’ attitude towards kinetic art and its underestimation see also [27]). In the mid-1960s, V. Vanslov, the famous Soviet art historian, considered “kinetic art” (precisely like that, in quotation marks) as having “pretense for novelty”, “borrowing Western forms”, “remakes... of abstractionists’ experiments”. To Vanslov, the idea of “kinetics” as an independent art form seemed made-up; there were limits outlined for artists to mark specific tasks of applied arts [28, p. 15–7]. Afterwards, many formal ideas of “Russian kineticists”, as members of the “Dvizhenie” called themselves, became part of contemporary design and mass culture. Today, this makes it difficult to consider certain kinetic artworks in a more serious way, as visual generalizations of a philosophical nature. (The problem is specified in the article by the art critic S. Khachaturov for the “Travel Time” exhibition catalogue in Moscow art gallery, the “Artstory”, in 2014 [29].)

Interest in the national kinetic art has grown in the recent decade, marked by a series of international and Russian exhibitions, both general and monographic². History of Russian kinetic art, which still has “white spots” and forgotten, unacknowledged names, opens space for research and discovery. “Artists and curators are looking for a resource that hasn’t yet been cultivated, trying to find new ideas”, according to the art historian K. Svetlyakov, the head of the Newest Trends Department of the Tretyakov Gallery [30]. One of the latest large projects was the “Future Lab: Kinetic Art in Russia” (St Petersburg, 2020; Moscow, 2021). The exhibition-laboratory unfolded a large scale retrospective and perspective of Russian kinetic art — from early Russian avant-garde to contemporary young artists. The exposition was impressive not only because of its size and spectacle but also because new names were included in the “canon” of national kinetic art. For instance, several reviews of the exhibition mentioned that the organizers “remembered the Leningrad citizen August Lanin by arranging a small retrospective of his architectural design light music works” [10].

Indeed, in the expositions, in exhibition catalogue texts, and in individual articles devoted to kinetic art in Russia, the focus is usually placed on history and activities of the “Dvizhenie” collective and the prominent individual representatives of Moscow kinetic art — L. Nusberg, V. Koleichuk, F. Infante-Arana and others [29; 31]; on works of Kazan-based “Prometheus” and Bulat Galiev’s personality [32]; and on Baltic artists’ experiments [33]. This is undoubtedly justified but not sufficient for a complete picture of Soviet kinetic art development: Leningrad artists connected with this movement are virtually absent. This inertia has remained even in texts by the authors of the exhibition catalogue of the “Future Lab” where, it would seem that the Leningrad artist Lanin was “remem-

² Among them: “Space Geometry. V. Koleichuk” (2012, Moscow Planetarium); “The Sounding Substance” (2012–2013, State Russian Museum); “Travel Time. V. Koleichuk” (2014, Artstory Gallery (Moscow)); “Facing the Future. European Art of 1945–1968” (2017, Pushkin State Museum of Fine Arts, ZKM Center for Art and Media Karlsruhe, Centre for Fine Arts in Brussels (BOZAR)); “Transatlantic alternative” (2018, Garage Museum of Contemporary Art, Museum of Modern Art (Warsaw)); “Perpetuum Mobile. Russian Kinetic Art” (2017, Zarya Center for Contemporary Art (Vladivostok)); “Text — Context”. A personal exhibition of Fransisco Infante-Arana and Nonna Goryunova (2017, Scientific-research Museum of the Russian Academy of Arts (St Petersburg)); “Metaphor, Metaphysics, Metamorphose” Fransisco Infante-Arana and Nonna Goryunova retrospective (2019–2020, Multimedia Art Museum (Moscow)); “Forms of Movement” (2020, Sevkabel Port (St Petersburg)).

bered”. A. Yalova writes: “The role of Leningrad in development of kinetic art should not be overlooked” [13, p.28]. The role is then elaborated: the author presents the “break-through” projects of Moscow kinetic artists, the “Dvizhenie” collective in Leningrad in mid. 1960s — beginning of the 1970s. Today, it is evident that the role of Leningrad was not limited only to “providing a platform” for project implementation — even if August Lanin was the only representative of kineticism in Leningrad. The question of existence of a separate Leningrad line of kinetic art has not been raised — and this is understandable for several reasons.

Firstly, in the second half of the 1960s — beginning of the 1970s kineticism broke down the long-standing opposition between the two Russian capitals. It erased the borders, creating some kind of a unified Moscow-Leningrad “kinetic art space”. The childhood of Lev Nusberg, the leader of the “Dvizhenie” collective, was connected with Leningrad; later he often traveled there to visit the theatre director and artist B. Ponizovsky. The aforementioned projects of the “Dvizhenie” art collective in 1965 and 1967 took place in Leningrad, after which some of the Leningrad artists joined the collective, changing their addresses. At the beginning of the 1970s, an attempt to form a Leningrad collective, planned as some kind of a “branch” of the “Dvizhenie”, was made. Thus, kineticism — both as a phenomenon and as a term — was “supplied” to Leningrad from Moscow.

Secondly, in the Leningrad underground, the kinetic trend was clearly less pronounced in comparison to Moscow — in any case, it was not declared as strongly. It is also noteworthy that only the Leningrad artists who were directly related to the Moscow-based collective “Dvizhenie” and consequently became its members, regarded themselves as “kineticists”. Other representatives of the Leningrad unofficial art in the 1960s–1980s did not insist on the name — even when some of their works corresponded to the concept formulated later by V. Koleichuk: “Kinetic art is an art form which is based on the idea of the movement of the form, and not just physical movement of the object, but any change or transformation — any form of “life” of the artwork while the viewer contemplates it” [9, p. 6]. The third reason is related to the case of A. Lanin: this artist does not fit unambiguously into the “official vs unofficial” Soviet art opposition. Lanin was beyond and above the “camps” — this is one of the problems of perception and evaluation of his work for both Soviet and post-Soviet art historians. Being personally or in correspondence acquainted with all the big actors of Moscow kinetic art, Lanin took interest in their works, partly overlapping with them in his own creations, however, he did not consider himself a kinetic artist. To him, kinetic art was connected precisely with activities of the “Dvizhenie”, the Moscow art collective. However, in V. Koleichuk’s book “Kineticism”, August Lanin’s art was reasonably included in the context of Russian kinetic art [9, p. 38]. (This is why it was so natural for organizers of the “Future Lab” in 2020–2021 to remember the Leningrad artist: “The scenario for the exhibition was organically developed from “Kineticism”, the “little book” by Vyacheslav Koleichuk... can be considered as the concept upon which the exhibition was based” [34, p. 63].) The fourth reason is the synthesis of arts: the synthesis of color, light, architectural and plastic arts, the synthesis of arts and technology which enthralled many artists in the 1960s–1970s and brought them closer to the perspective of kinetic art. This by definition synthetic art form is solving the problems of synthesis, allowing to place certain names, A. Lanin in particular, within the kinetic art context, regardless of his understanding of the term, not always corresponding to the generally accepted point of view.

In 1965, on the 20th of May, the “Kinetic Art Exhibition-Performance” by the “Dvizhenie” collective was opened in the Leningrad Architects’ House. The artists “could organize the space using light and sound effects and complex three-dimensional moving structures” [35, p. 44]. After the event, the head artist of the city V. Petrov invited the “Dvizhenie” artists to participate in the artists’ competition for the decoration of Leningrad to celebrate the 50th anniversary of the October Revolution in 1967. The emergence of “Russian kinetic artists” became the turning point in the Leningrad artist Alexander Grigoryev’s (born 1949) creative biography: “My destiny makes a swift zigzag, my (nearly six year-long) stay-participation in the ‘Dvizhenie’ collective”, the artist writes [36]. In 1966–1967, before his admission to the SPSUACE³, Grigoryev had been working in the Experimental Design Model Workshop at LenZRI⁴. There L. Nusberg and the “Dvizhenie” artists started to work on the University Embankment and Finlyandsky railway station square decoration project for the 50th anniversary of the Revolution. Grigoryev, previously completely unaware of kinetic art, found himself at the epicenter of kinetic art perspective. Soon afterwards Alexander Grigoryev traveled to Moscow to get acquainted with works of Nusberg and Infante-Arana. After returning to Leningrad, he participated in creating kinetic artworks for the “Cyber-Event” (1967) — to create this artwork, L. Nusberg and the collective were invited to use the Engineer’s House at the Peter and Paul Fortress as their workshop. In the same 1967, A. Grigoryev produced his first abstract geometry minimalist paintings and spatial kinetic objects, and later his version of a theatre without actors — “Mirror micro-theatre” (1968) [37]. At the beginning of the 1968, having left the architecture faculty of the SPSUACE, the artist, together with other members of the collective, participated in developing a project for children’s playground environment “The Flower Island” at the “Orlyonok” pioneer camp in the Northern Caucasus. At the end of the year Grigoryev relocated to Moscow but paid frequent visits to his home city, also for the “kinetic business” purposes. For Natalya Prokuratova (1948–2020), kinetic art also started with Nusberg and the “Dvizhenie”. In 1967, Prokuratova, then not yet an artist but a student of the Leningrad Institute of Aviation⁵, was one of the many guests at the Engineer’s House of the Peter and Paul Fortress. There she got acquainted with and got into the kinetic artists’ activities, and in the same year she became an active member of the “Dvizhenie”. It was through her efforts that in 1972 the “Dynamic” collective was formed in Leningrad. M. Nenashev, I. Ivanova, A. Bakhvalov, T. Silina, and G. Antonov were the collective’s members. The “Dynamic” aimed to establish a “theatre based on the synthesis of science and technology where every actor would be a mime, and also an artist, and a musician” [38]. The group carried out several drama performances and staged a number of plays but broke up already in the summer of 1973 [9, p. 57]. V. Koleichuk recorded brief notes about the collective after N. Prokuratova’s words while working on his book “Kineticism” in 1994, which has been quoted without significant alterations in various sources. Today it calls for a more detailed presentation and factual elaboration.

Alexander Grigoryev kept in touch with the collective’s members until 1974. According to him, Georgy Antonov was the “Dynamic’s” leader. Georgy Alexandrovich Antonov (1948–2009) was Z. Ya. Korogodsky’s student, the Nikolay Akimov’s Comedy Theatre

³ Leningrad Civil Engineering Institute, today the St. Petersburg State University of Architecture and Civil Engineering (SPSUACE).

⁴ Leningrad Zonal Research Institute of Experimental Design.

⁵ Today the St. Petersburg State University of Aerospace Instrumentation (SUAI).

actor, and a well-rounded person. His colleagues remember that he was a talented mime, he wrote poems and scripts, he was an excellent painter (the graduate of the art school of V.I. Mukhina's college), and also fond of color music. Some of Antonov's fellow students, presently actors of Saint Petersburg theatres, still remember the kinetic performances which combined the actors' movements and color music. Some of them were not only spectators but also participants of the performances without being part of the "Dynamic" collective. The performances were played out in workshops or even at friends and "sympathizers" apartments. There were also more large-scale performances. "In 1972 in Leningrad... at the stage of The Railway Transport Engineers' Institute's Palace of Culture a complex theatrical costume play 'Color and Black / Monster' was shown. It was created jointly by the 'Dvizhenie' and the Leningrad's 'Dynamic' collective" [37]. As for the independent performances by the "Dynamic" at Leningrad's state theatre stages, the information about them is rather vague. In the book by Koleichuk, and other authors after him, some performance that the "Dynamic" showed at the Leningrad Young People's Theatre in 1972 is mentioned, and also decorations that were made by the kinetic artists for the "Trojan Horse" play at the Nikolay Akimov's Comedy Theatre in 1972 or 1973 [9, p. 57; 37]. However, no documented proofs that the plays were shown can be found, not even any memories of them⁶. In 1974, Antonov and his creative group of artists and architecture students were invited to take part in a student creative projects exhibition. One of the artists who created a kinetic ensemble for the exhibition was Alexander Grigoryev (a reconstruction of one of his objects from the exhibition was presented at the "Future Lab" of 2020 and 2021). In 1973–1974, Antonov and Grigoryev also envisioned a kinetic theatre performance "The Play of Forms" (Grigoryev was responsible for the scenography and costumes while the concept belonged to Antonov). "The project consisted of three parts. The first part was a play set at a traditional theatre venue (Georgy wanted this), the second part in the nature, at Tsarskoye Selo next to the Large pond (we could even arrange a white horse), and the third part at a workshop on Vasilyevsky island with a change of interior and creating a kind of a labyrinth. The concept of all the three performances was that actors in costumes played out a complex pantomime (Georgy was in charge), so to speak, from Bakst to Suprematism to a kinetic rhythm. Only the third part was performed... The idea behind this part of the performance was to create an image of a maze-like space, like a human soul. To exit the labyrinth is to reveal the 'MYSTERY'. The utilitarian task of the labyrinth environment was to guide the spectator through a pre-planned author's scenario, so as to convey the idea more fully" [I]. The project's description features apparent overlaps between the "The Play of Forms" and the concept of replacing theatre by a play theatrical environment, a play labyrinth, which had been previously actively developed by Nusberg. But such proto-kinetic synthetic plays and performances have a long standing tradition in the St Petersburg (former Petrograd) avant-garde, starting with the "Victory over the Sun" (1913) opera by A. Kruchonykh, M. Matyushin and K. Malevich. In May 1923, a stage play of V. Khlebnikov's "supertale", the "Zangezi", was performed thrice at the Petrograd muse-

⁶ Evidently, this is a misunderstanding and there was no "Trojan Horse" after all. In 1973, in the N. Akimov's Comedy Theatre the director P. Fomenko staged a performance by the Jean Giraudoux play "The Trojan War Will Not Take Place" where Georgy Antonov played one of the roles. I. Ivanov was the head artist of the theatre and the artist for the performance. Antonov's or other kinetic artists' participation in making decorations for the performance is not confirmed by the poster, program or memories of colleagues, and neither by the artist Igor Ivanov in his personal conversation in the author of this article.

um of artistic culture. The play's director, set designer and lead actor playing Zangezi the prophet was Vladimir Tatlin. "Zangezi" is a synthetic artwork, an attempt to find object and color equivalents to words and sounds in Khlebnikov's language (see, in particular [39, p. 64; 40]). In 1920–1923, Mikhail Matyushin arranged performances in the memory of Elena Guro in Enders' apartment in the Petrograd district. "Matyushin's aim when he created the plays was to 'break down' the old academic stage box and immerse the spectator into color shape and sound space" [41]. It's unlikely that Leningrad kinetic artists of the 1970s knew anything about the essence of the total objectless theatre of Matyushin, about his views and philosophy; they hardly knew Tatlin's play and the "Victory over the Sun". Still, one can indeed perceive the continuity from the avant-garde performances of 1910s–1920s in A. Grigoryev's drafts to "The Play of Forms" of 1973–1974. His costume objects and scenography drafts for the "show" reconstructed by the artist in 2000, and later "theatrical reminiscences" about the "Play of Forms" (2011), make this connection even more evident as he included suprematic elements and fragments of paintings by Malevich [42]. This, however, is a "reverse perspective".

"The Manifesto of Russian Kineticists" (1966) proclaims: "together, we make such an art that is impossible to create separately" [43]. The "Dynamic" collective, closely related to the "Dvizhenie" is the only Leningrad attempt of "making together", the collective kinetic art. For Leningrad, activities of bright individuals, sometimes unaware of one another's existence, are more typical.

It was in the middle of 1970s when the confrontation between the state authorities and Soviet non-conformist artists reached its peak. At the same time, the artists had their first victories: the "Bulldozer exhibition" and the exhibition in the Izmailov's park in Moscow (1974), exhibitions at the I. Gaza Palace of Culture (1974) and the "Nevsky" Palace of Culture (1975) in Leningrad. In 1976, the "Painting. Graphics. Object" exhibition of abstractionist artists took place at the S. Ordzhonikidze Palace of Culture, where Yu. Dyshlenko, E. Mikhnova-Voitenko, L. Borisova, A. Vasilyeva and others participated. At the exhibition I. Zakharov-Ross (born 1947) presented the "Seven Coordinates", a massive art object — a map with schemes and wires that made different noises, quite a kinetic artwork. However, Zakharov-Ross was moving in another direction: he was interested in action art. He showed his first performance already in 1975 (almost simultaneously with performances of Moscow conceptualists), thus being "one of the few conceptualists of the Leningrad school" [44]. In the second half of the 1970s in Leningrad, and then in emigration, he continued to organize numerous performances and happenings in which "the tendency to ritualize action was becoming more and more evident" [44]. A participant of the same 1976 exhibition, Leonid Borisov (1943–2013) was the master of geometrical abstraction, paintings that went into the three-dimensional space of installations and assemblages, and a representative of the tradition routed in the art of Malevich and Tatlin. A LEIC⁷ graduate, Borisov came to art through his Leningrad non-conformist friends (A. Leonov in the first place) in 1969. He started by making drawings in the manner of Leonov, then an adherent of P. N. Filonov's art. At an exhibition at the "Nevsky" Palace of Culture in 1975, Borisov presented his analytical artworks, made "to an atom" according to Filonov's behest, for the first time. At the same time, though, Borisov created the first examples of geometrical abstraction which became his "trademark" style. With his "knight-like" loy-

⁷ The Leningrad Electrotechnical Institute of Communications.

ality to geometry, as A. Borovsky put it, Borisov was close to the Moscow underground, in particular, to some of the ex-members of the “Dvizhenie” collective [45]. Borovsky describes Borisov as a very independent artist: looking closely at how “the ‘Dvizhenie’ collective kineticized suprematism to utilize it in their design-factory activity”, Borisov didn’t become the Muscovites’ rival, nor their follower. (Similarly, “he didn’t become an adept of the powerful Western tradition of geometrical abstraction” [46].) According to Borovsky, Borisov’s geometrism, devoid of a philosophical and religious background, opposed him to the literary-centrist Leningrad tradition. V. Patsyukov, in his philosophical essay about Borisov, considers his art as a combination of St Petersburg and Moscow schools, based on the artist’s own confession. Patsyukov describes Borisov’s space-time as a “configuration of random events in the moment of observation” (after Jung) etc. However, kinetic art was out of question. By Patsyukov’s definition, Borisov “can be regarded as a perfectly conceptual artist”: he “is able to turn language into an object, doing it by the means of the language itself” [47]. In 2012–2013, L. Borisov’s works fit organically in the “Sounding Substance” exhibition at the Russian Museum: in one of his artworks, there was a working doorbell (see: [48] for the description of Borisov’s works at the exhibition). In 2020–2021, they naturally became part of the kinetic “Future Lab”, due to their abstract geometry and (which is no less important) the author’s involvement with the Moscow underground. However, as the art historian K. Dolinina rightly puts it, “not every geometricity is a reference to kinetic art” [49]. A comparative analysis of kinetic geometry and geometrical abstraction of Borisov could become an independent research topic in the future.

Among the Leningrad non-conformists, Valentin Afanasyev (born 1945) stands apart. The author of the “Elementary Theory of Audiovisual Stimuli” and the system of correspondence of color-sound relations in music, Afanasyev prefers to talk about painting and music synthesis instead of kinetic art. In fact, his art has never been considered in connection with this movement. Afanasyev has participated in several non-conformist exhibitions: the Gaza and the Nevsky Palaces of Culture, the S. Ordzhonikidze Palace of Culture, and other exhibitions of the Leningrad underground and house concerts in Moscow, invited by Oskar Rabin. A Leningrad Conservatory graduate, Afanasyev is a touring violinist and artist, although he doesn’t distinguish between the two occupations because he considers them to be just different manifestations of the same “activity”. As many others, Afanasyev got interested in color music in adolescence thanks to Scriabin. His fascination, atypically, didn’t start from the color music ideas of the composer, of which Afanasyev then knew nothing, but rather from the music itself. He listened to the records on repeat, trying to understand what was it, that was so unusual, strange, and yet so relatable in Scriabin’s works. Later, when his own interest in color music synthesis had been shaped, Afanasyev was not aware of the “problem’s scale”: he did not know that “a wealth of literature has been devoted to creating an art that strived to combine sound and color light into something unified or closely tied together, as, for instance, space and time are by Lorenz — Poincaré’s and Einstein’s theories” [50].

In 1922, the book by the German philosopher E. Cassirer “Einstein’s Theory of Relativity” was published in Russia. This work, in which theory of relativity was analyzed and interpreted both from physics and philosophy perspectives, was one of the main influences for “The Value of Music”, an article by the Petersburg composer and musicologist B. Asafyev. “He contemplated the phenomenon of relation despite the dissimilarity of the concept with the idea of relativity” [51]. “Each moment of sound is a relation”, wrote

Asafyev, taking further the idea of unity of the temporal nature of music and its spatial characteristics [52, p. 23]. Shortly afterwards Asafyev's article "Sounding Substance Design Process" (1923) got published. There, the nature of the music material was discussed for the first time. The very formulation of such a question was absolutely innovative at that time. Asafyev introduced the concept of the "sounding substance", highlighting that music is not an arithmetic sum of units (sounds, beats) but "it is created from continuous sound matter which is being organized and articulates its structures only in the process of its unfolding in time" [51]. In the same 1923, a student of B. Asafyev, in the future — the famous pianist and musicologist M. Druskin, then a phonology officer at the Leningrad State University of Artistic Culture, presented his report on the "sounding substance". He wrote: "All that we can touch, smell, see, or hear is material. <...> We need to take into the account all possible features of the sounding substance..." [53]. The concept of the "Sounding Substance" exhibition held in the State Russian Museum in 2012–2013 was shaped by the interpretation of M. Druskin. The exposition produced noise, screeching and whistling sounds, objects were illuminated and the lights went out as if they were living in the space. This was a perfectly kinetic display. Some of the artists whose works were included (V. Koleichuk, B. Galeev) were the classics of Russian kinetic art. Today it is clear that the "Sounding Substance" is the direct predecessor of a "Synesthesia Lab" section of the "Future Lab. Kinetic Art in Russia" exhibition in 2020 and 2021. Despite that, the announcements, curators' materials and exhibition reviews did not mention kinetic art, discussing instead the synthesis of arts and sound visualization (see, for example, [54]). (Does that mean that the topic hasn't been updated, or that kinetic art has remained a tradition not associated with Leningrad?)

V. Afanasyev participated in the "Sounding Substance" at the State Russian Museum in 2012–2013, but unfortunately his works were not included in the "Future Lab".

Conceptualizing music as a "sounding substance" and painting — as a "sounding matter" (in Afanasyev's definition), as well as the concept of "relation" are key to the V. Afanasyev's color sound system. To solve the problem of color and music synthesis, he studied philosophy, mathematics, physics, read Kant, Leibniz, Jung, analyzed research by Helmholtz and Ostwald and E. Schrödinger, one of the quantum theory founders. He realized early enough that "objectively, sound can not be converted into color" because these are phenomena of a different nature, since sound propagates through air as acoustic waves, and color is associated with electromagnetic radiation of a range of wavelengths visible to the eye. When he was seventeen years old (in 1962) he found "the key" to the problem: in both systems, sound system and color system, there are certain *relations of varying degrees of tension* — consonance and dissonance, harmony and disharmony. "The tensions created by ratios of electromagnetic waves (color) *can be compared* to the tensions created by ratios of acoustic waves (sound)" since "*the impact* of color relations is similar to the impact of sound relations" (italics by the author) [50]. One cannot strictly assign a certain color to a certain sound because the same note can have different colors depending on which plane the relations between the sounds and colors are considered — melody, harmony, or tonality. Working according to the Afanasyev system, "an artist-composer *chooses a color tone* of their work, and the subsequent development takes place *according to the established laws of sound and color*" (italics by the author) [55]. Color light beams are also subject to these laws, and their geometry follows the principles of consonance (parallel directed rays) or dissonance (intersecting rays). A subjective, intuitive, arbitrary approach to

the organization of sound and color scales is thus eliminated. This, however, does not restrain but, on the contrary, expand artists' freedom, opening up new possibilities through the knowledge of composition rules or painting technique, or being able to play a musical instrument. Valentin Afanasyev likes to repeat that at the times when M. I. Glinka composed music, the orchestra did not include trombones and the so-called "Wagnerian orchestra" of today appeared relatively recently. Hence, it is logical that in the future new color musical instruments can be included in a symphonic orchestra along with traditional ones; new works will be composed especially for these instruments, greatly amplifying the emotional impact on the listener. The mission of color music, according to Afanasyev, is not a replication or illustration of music with a backlight but — in prospect — the birth of a new "art of Music" (capitalized), for which traditional music and painting would be precursors, the "evolutionary past" [55].

Afanasyev's system of correspondence of color-music relations, where principles of musical harmony and color science are connected based on mathematical foundations, appeared as early as in the 1960s. However, technical capacities partly allowing the realization of his idea were developed only in the 1990s. "Partly" refers to the limited color range of the projectors designed for light shows that artists had to work with. Still, they could organize several concerts. The first one happened to be at the Nevsky Palace of Culture in 1975 at the non-conformists' exhibition in which Afanasyev participated. Then, there were concerts at the Capella, then at the Smolny. "However, before I got started with projectors", Afanasyev told in one of his interviews, "I painted the 'Chaconne'" [56].

"J. S. Bach's 'Chaconne'" (1995–2005) is the painting that Afanasyev created literally by sheet music presenting a possible answer to the "how could the sound look like?" question by the "Future Lab" — exhibition curators. The artist painted all the 256 measures of the piece into a 200 × 200 cm square (16 bars horizontally and 16 bars vertically). The reason for this size is that the artist wanted to visualize even the shortest notes in the piece, the 32nd — their size in the painting is 0.5 cm (see the detailed author's description of the "Chaconne" design [57]).

Afanasyev's painting presents the structure of the "Chaconne", color and rhythmic manifestation of the Bach's piece not visible to the average listener under the "shell" of music. At the same time, it is a painting created by rules of painting. "The 'Chaconne's' algorithm could also be represented as a line", said the artist. "But from the painting point of view, everything would 'spread around', the energy and the tension would disappear. Were it not for the Malevich's 'Square' and Filonov with his 'completeness' principle, the requirement to paint 'to an atom', this 'Chaconne' would not be possible" [II]. Another example of a work of this kind is the "Shubert's 'Ave Maria'" (2008). The principle was the same: according to his system, the artist revealed the structure of the piece on a canvas. However, "Ave Maria" is perceived as a more emotional piece compared with the "Chaconne". This is why the painting has a more complex texture, featuring a volumetric graphic sketch painted over the "geometrical abstraction" of the algorithm. "Ave Maria" was also done by sheet music", Afanasyev told. "But this painting was done in my version. The algorithm was created by Shubert, however this is my subjective vision of his music" [II]. The synthesis of the subjective and objective in Afanasyev's musical abstractions opens "the way to completely new principles of shape and color distribution in painting and computer musicography on a plane and in the three-dimensional space", these paintings "can serve as models for prototypes of a new computer musicography art", in the artist's opinion [55].

The inclusion of color music (light music) as part of kinetic art is a controversial issue not obvious to everyone (see, in particular [14]). According to A. Lipov, “The most difficult aspect of kinetic art is the specificity of the light music that one of the leading national kinetic artists, V. Koleichuk, considers to be a part of the kinetic movement (the majority of other artists recognize it as part of kineticism somewhat conventionally)” [1, p. 150]. For instance, Infante-Arana not only refuses to recognize color music as kinetic art but also to consider it as an art form at all: “I’ve been always sick of its vulgarity — in my view, there was little art, or none at all” [23]. V. Koleichuk, though, devoted a separate chapter to the synthesis of light, sound and motion in his book “Kineticism”, including light music to the chapter. A small fragment of the chapter is devoted to the synthesis of dynamic color light shapes and music in works by August Lanin [9, p. 38].

August Lanin (1925–2006) belonged to a different generation to L. Nusberg, V. Koleichuk, F. Infante-Arana, A. Grigoryev, G. Antonov, V. Afanasyev and many other Soviet artists associated with kineticism. Lanin had a completely different life and artistic experience. In the 1950s, the architect had design practice and a busy schedule. In the beginning of the 1960s, he became famous for his expressive, masterful linocuts and created original series of pop art works. Such was the “baggage” of August Lanin when he began his experiments in the field of synthesis. Dating of his first color music works suggests that the 1965 Moscow kinetic artists’ exhibition at the Architects’ House could have inspired the artist to get started with it, although there is no credible information about his attendance and his reaction to the exhibition. The artist himself associated the new creative stage with his pop-art series, the “garbage” art as he called it: “The electronic sound analyzer was introduced for the first time, for the first time I’ve made some attempts to work with it in Kazan, in Kharkov, and, after the garbage art, I got attracted to this sterile one” [58, p. 47]. According to N. A. Lanina, the decisive event for the artist to start creating color music works was his attendance of a liturgy at the Pskov-Pechory Monastery which inspired the idea of church synthesis that could be reimaged at the new stage of science and technology development [59, p. 300]. In 1967, Lanin and a small group that he gathered (engineers B. Kalnyn, V. Chernyshev, layout designers V. Ambarov, L. Kozarez, the architect V. Bobronnitsky) participated in a contest for Leningrad’s decoration for the upcoming celebration of the 50th anniversary of the October Revolution, in which the “Dvizhenie” collective members also participated. For the contest Lanin presented layouts of three color music pavilions (“The Rus”, “Revolution” and “Socialism”). According to his vision, the pavilions could serve as sites for thematic expositions and theatre shows. (Project was not implemented.)

Lanin had his reference points and preferences in avant-garde “proto-kinetic” and modern foreign kinetic art. For example, he could not relate to Gabo’s art; among his contemporaries, Lanin was interested in N. Schöffer’s art (while Schöffer was one of the main theorists and practices of kinetic art, Lanin did not consider him a kinetic artist, contrary to evidence). In his dissertation, “Architecture of Entertainment Centers and Electronic Synthesis of Arts” (1984), Lanin more than once mentioned and analyzed Schöffer’s works known to him. In some of Lanin’s color music installations of the 1970s, there is a resonance with characteristic geometric structures of the French artist’s synthetic objects. Lanin was drawn to his antipodes in Russian avant-garde — the suprematism of Malevich and Filonov’s analytical art. Among those who worked on the synthesis of architecture, light, color and sound in the 1920s, Lanin highly regarded V. Tatlin’s and the Leningrad artist G. Gidoni’s art.

Lanin regarded his experiments with color music, architectural and plastic art forms as a way towards a new art form — a functional synthesis on an electronic basis. Lanin formulated the most important task of this modern art form as “to penetrate beyond the boundaries of perception and awareness, to expand the capabilities of the man as the instrument for cognition” [60]. Lanin’s works were described in connection with the problem of the synthesis of arts in publications in the 1970s [61; 62], the 1980s [63], the 1990s [64], and the 2000s [65]. (As early as in 1972 philosopher M. S. Kagan included color music and kinetic art in his “Morphology of Art” [66] — largely thanks to his deep acquaintance with A. Lanin’s activity.) A small “kinetic” emphasis appeared in V. Voitekunas’s article (2011): Lanin’s color music objects were included into international and Soviet color music experience in the 1950s–1960s. The author remarked that his works could be positioned among the concepts by Nusberg, Infante-Arana and Koleichuk” [67]. It is important to note that, apart from V. Koleichuk’s book and literally only a hint in Kagan’s article, this was the first source where Lanin’s synthetic works were mentioned within the context of his contemporaries’ activities. In other publications (before the “Future Lab” catalogue) the artist’s experiments appeared completely alone — he was presented as “the first”, “the only one”, etc.

In the beginning of the 1970s, Lanin developed his functional synthesis method on an electronic basis that he considered to be a modern art form that had its own language and characteristic features. Lanin’s method was based on the correlation patterns of sound and color light gamut with geometric characteristics of architectural forms, based on the gravitational orientation inherent to man. (The complete description of Lanin’s method was done in his dissertation. Among published works see [63, p.7] for the most detailed description of the patterns in Lanin’s method.) The key concept of Lanin’s method is the “emotional environment”. The artist believed that the color music as a more or less successful illumination of an artwork is no more than a visual interpretation of music, which does not transform into “a new quality of art”. The aim of his work was to achieve “*a single spiritual content of an emotional environment with equal emanation of sound, color, plasticity and color dynamics*” (italics by the author) [68, p. 51–2].

From all the numerous projects by Lanin, only several artworks were implemented — a few color music panels and advertizing installations (which still were not implemented fully). The most interesting monumental objects and architectural color music complexes, however, have remained in projects and in working models.

The predecessors of projects similar to August Lanin’s in the Leningrad art of the 1920s are the model of the Light Monument of the Revolution by Grigory Gidoni and his light theatre project — a kind of a temple of a new art of light and color proclaimed by the artist (On G. Gidoni’s art and the history of the Light Monument see O. Kolganova’s research [69; 70]). Today, “Gidoni is considered one of the pioneers of kinetic art and light music in our country” [2]. August Lanin mentions Gidoni on the first pages of his dissertation in connection with the possibilities that a synthesis of arts can offer to form a new psychological climate of the urban environment. The bibliography of his work includes a book by Gidoni, the “New Art of Light and Color” (1930). One of the first (and one of the most complex in all respects) synthetic projects by Lanin, the color and music pavilion complex “Life” (1968), which is not linked to the Light Monument thematically, has certain formal parallels to it (in more detail, although not analyzed fully, on the “Life” complex see [67; 71, p. 45, 441]).

The topic of comparing Lanin's color and music projects with those of Gidoni has not been raised in publications analyzing Lanin's work. Neither has a more general topic related to the connection of Lanin's projects to the avant-garde art (With the only exception of D. Lanin who wrote about the 1920s avant-garde — above all, the suprematism of Malevich and Filonov's formula-paintings — as the main sources of inspiration for Lanin's paintings, in his monography album devoted to the artist's paintings (2008) [72]). These topics could be considered from a kinetic perspective, taking into the account all issues of this approach.

The theme of space is one of the most important for both Russian avant-garde and Soviet kinetic art. From 1972 to 1974, August Lanin worked on a space assignment of the Moscow Institute of Biomedical Problems (IMBP). In collaboration with neurophysiologists and psychologists of the Institute who were researching the problem of sensory deprivation of cosmonauts, Lanin worked on projects of an artificial environment with an active emotional impact, based on his functional synthesis method (for more detail about Lanin's "space" project see [73; 58, p. 47; 67; 35, p. 45]). The program was closed and classified but the artist continued with the topic of space modelling by creating a series of graphic works of color music objects intended for outer space to be placed on the surface of the Moon and planets. Among Lanin's contemporaries, F. Infante's series of works titled the "Architecture of Autonomous Artificial Systems in the Outer Space" (1971) has some parallels with the space projects of Lanin. Both continue futuristic projects of the Russian avant-garde, although they are not merely tributes to the avant-garde. Behind Infante's projects is his fascination by the infinity of the space, a "metaphysical sense" (see above). Behind Lanin's, it can be presumed, is his constant interest in the problem of time in all its aspects, which in the turn of 1970s–1980s attracted him to the astrophysicist N. Kozyrev's Theory of Time. The author of this article believes that concepts of Kozyrev's theory were reflected in Lanin's paintings, and possibly in his latest synthetic project, the "Forum of Cultures" (alternatively, the "Architectural Images of Cultures" or the "Post-Apocalypse"), on which the artist was working throughout almost the entire 1990s.

At that time, Russian art was not up to kineticism — artists and general public were more concerned about socio-political problems. Maybe that is why the "Forum of Cultures" has remained the most underappreciated Lanin's project. The "Forum" was an ensemble of color music pavilions, each being an original architecture formula of a culture (England, Germany, Greece, China, Russia etc. — a total of 14 buildings). Lanin called his project an "architecture fantasy", an "utopia", although it wasn't exclusively a "paper architecture". From the functional viewpoint, the "Forum of Cultures" was designed as a venue for congresses, exhibitions, festivals and other business and entertainment events. According to Lanin's plan, it was supposed to be located at the Smolenka river mouth, on the shore of the Gulf of Finland, solving the problem of creating a monumental sea façade of the city conceived at the turn of the 1950s–1960s. From the philosophical point of view, "The Forum" is the "Post-Apocalypse". In Lanin's words, "the Apocalypse is the end of the world, and the Post-Apocalypse is a material and spiritual revival" [74, p. 10]. Judging by Lanin's conceptual projects, the ensemble was envisioned as a grand architectural and natural "temple" uniting all humanity, all civilizations and natural elements. In this project, created at the turning point between two eras, one can see an allusion to A. N. Scriabin's idea of the "Mysterium" unifying all art forms, in the performance of which all mankind will take part, beginning its transformation and the onset of a new space era. Lanin's

“Post-Apocalypse” is the result of his many years of work in the field of art synthesis. At the same time, the project can be understood as the result of then-almost hundred years’ history of interpretation and continuation of Scriabin’s synthetic ideas in Russia — as a kind of an “architectural tribute” to Alexander Nikolaevich Scriabin.

This brief review makes it possible to draw several conclusions about the “kinetic experience” of Leningrad artists and outline more general problems.

Leningrad kinetic art can be considered from two angles. Firstly, as an attempt to transfer ideas of collectives like the “Dvizhenie” in Moscow to the Leningrad soil⁸. Secondly, “kineticism without a manifesto” can be seen as a general trend among artists in the 1960s–1970s towards creating synthetic artworks to go beyond the boundaries of traditional arts. That is, Leningrad “kineticism” is a “synthetism”.

The art of L. Borisov, considered as part of the Moscow underground and closely associated with the leaders of kineticism, raises a separate question about the relationship between geometric abstraction and kinetic art. Lanin’s work, being “literary-centric” in the Leningrad manner, turns out to be more “kinetic” than Borisov’s geometry.

Creative practice of the Leningrad artists, who in one way or another came into contact with the kinetic perspective, reveals many parallels with the St Petersburg avant-garde tradition. However, as in the case of Soviet kinetic art in general, each case of continuity and succession calls for an independent study. “We observe not so much a lineage of students-teachers as virtual astronautics of avant-garde art forms in the art of Petersburg”, E. Andreeva commented in connection with the “Game of the ‘New Artists’” [75]. This is probably the most accurate definition of the relationship between the St Petersburg avant-garde and Leningrad kinetic art.

The short article format allowed only a few artists to be included in the review. Could the list of names be continued? This is not an idle question related to the definition of kinetic art and its boundaries. Their vagueness today was clearly demonstrated at the aforementioned “Future Lab” exhibition in 2020 and 2021. For example, can the famous “first Russian synthesizer ‘Utyugon’” created in 1983 by the Leningrad “New artists” T. Novikov and I. Sotnikov from a countertop and old cast iron irons suspended from it on strings, be considered as kinetic art? This “symbol of grand achievement of the Leningrad unofficial culture” [76] was the embodiment of a total game by the “New artists” aimed at a “creative transformation of people and things” (on the game of the “New artists” see [2]). It also continued the tradition of the St Petersburg avant-garde — such as M. Matyushin’s synthetic performances in the memory of E. Guro mentioned earlier. Can the concerts of “Pop-Mechanics”, “a music and semantic collage created by Kuryokhin literally in front of the audience depending on the performance venue, audience and the participants” [77], be included into kinetic art? And, finally, has all contemporary art which uses new technologies turned out to be “kinetic” thanks to its inherent interactivity? Or, just as not any geometricity is a reference to kineticism, so not all movement and transformation is actually kinetic art?

⁸ In this regard, a remark by the Moscow philosopher S. Zhigalkin in a conversation with the author of this article is noteworthy: “‘The Dynamic’ broke up after L. Nusberg’s arrival and his authoritarian attempt to rebuild the collective according to his idea of a kinetic group” [III].

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