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# Parallel History of Russian Musical Avant-garde

## *Paralelinė Rusijos muzikos avangardo istorija*

### Abstract

Miguel de Unamuno, the Spanish philosopher, perceived a history as exterior and interior processes, which co-exist and give us remarkable facts and hidden layers of memory. There are certain trends that received an appraisal among avant-garde shifts at the beginning of the 20th century, and there was a parallel process which gave future generations an inexhaustible source of inspiration. Among them, I would like to bring your attention to microtonal music and its development in Russia between the 1900s and 1920s.

Russian history of new music in the 20th century could be called 'impulsive'. There were powerful stimuli that were produced by Western music and accommodated or not by Russian composers. First avant-garde composers, inventors, acousticians and physicists worked on a sound division. Theoretically they were much more successful than in musical meaning. Between the 1900s and 1920s they scientifically described what was musically developed in the second half of the 20th century.

Regarding microtonal music, it is difficult to speak of an organized group of composers, physicists and acousticians who specifically engaged in the development of this phenomenon. Microtonal music belongs to those who acted along. Although there were lucky exceptions and besides activities of Arthur Lourié, Mikhail Matyushin and Arseniy Avraamov I will review the existence of the GIMN group of scientists (State Institute of Musical Science) in Moscow and the Circle of Quarter-tone Music in Leningrad.

In this article I am going to present several features of microtonal music development at that time, its chronicle, historical and artistic context that accompanied the appearance of the microtonal idea in the 20th century.

**Keywords:** microtonal music, Russian avant-garde, futurism, quarter-tone, temperament, musical acoustics, Circle of Quarter-tone music, Matyushin, Avraamov, Wyschnegradsky.

### Anotacija

Ispanų filosofas Miguelis de Unamuno suvokė istoriją kaip tuo pačiu metu vykstančių išorinių ir vidinių procesų visumą, kurioje atsiskleidžia reikšmingų faktų ir paslėptų atminties klodų. Kai kurios XX a. pradžios avangardinio meno srovės jau sulaukė istorikų dėmesio ir užėmė deramą vietą istoriografijoje, tačiau esama ir paralelinių krypčių, iš kurių įkvėpimo sėmėsi ne viena vėlesnė kūrėjų karta. Norėčiau atkreipti dėmesį į vieną iš tokių neišsenkančių įkvėpimo šaltinių – rusų mikrotoninę muziką ir jos raidą XX a. pirmaisiais dešimtmečiais.

XX a. Rusijos naujosios muzikos istoriją būtų galima pavadinti impulsyvia. Vakarų muzika tuomet teikė stiprių atsinaujinimo impulsų, vienus jų rusų kompozitoriai perėmė, kitus atmetė. Pirmiesiems avangardo kompozitoriams, išradėjams, akustikams ir fizikams pirmausia rūpėjo išskaidyti garsą į smulkesnes gradacijas. Tačiau jiems kur kas geriau sekėsi teoriškai pagrįsti tokio skaidymo padarinius nei suteikti muzikinę prasmę savo eksperimentams. XX a. pirmu–trečiu dešimtmečiu jie moksliskai aprašė tai, kas įgijo prasmingų muzikos pavidalų tik antroje amžiaus pusėje.

Kalbant konkrečiai apie mikrotoninę muziką, sunku būtų išskirti kompozitorių, fizikų ir akustikos specialistų, kurių veikla būtų išimtinai sutelkta šio reiškinio tyrimams, grupę. Mikrotoninės muzikos raidoje daugiausia nuveikė tie, kas ją praktikavo šalia daugelio kitų savo veiklos sričių. Tačiau buvo ir kelios išimtys: be Arthuro Lourié, Michailo Matiušino ir Arsenijaus Avramovo, Maskvoje veikė GIMN (Valstybinio muzikos mokslo instituto) mokslininkų grupė, o tuometiniame Leningrade – Keturtoninių muzikos draugija.

Straipsnyje aptariami mikrotoninės muzikos raidos bruožai minėtu laikotarpiu, taip pat pateikiama svarbiausių to meto įvykių kronika, apžvelgiamas istorinis ir meninis kontekstas, lydėjęs mikrotoninių idėjų sklaidą XX a. pradžioje.

**Reikšminiai žodžiai:** mikrotoninė muzika, Rusijos avangardas, futurizmas, ketvirtatoniniai, derinimas, muzikos akustika, Keturtoninių muzikos grupė, Matiušinas, Avramovas, Vyšnegradskis.

### Introduction

"Explosion crack and frights' fretwork will agitate the forthcoming year of arts!" – a team of futurists, headed by Mikhail Matyushin, Alexey Kruchenykh and Kazimir Malevich warned society (Matyushin 1999: 233). "... Now we are on the eve of the greatest musical revolution, the introduction of quarter-tones in music," stated one of the main microtonal messengers Ivan Wyschnegradsky (Wyschnegradsky 1992: 138).

The microtonal idea might be interpreted as a kind of music history counterpoint. This phenomenon was always observed by Western musicians, but its role and mode of existence in a global context is still subjected to reevaluation. The dominance of equal temperament in 18th century music was historically predetermined<sup>1</sup>. Although formal equalization of tones in octave in all historical stages of European music evolution did not correspond to the acoustic nature of sound, a relative 'purity' of intervals during three centuries began to be perceived as only possible and accurate.

Inside the equal temperament composers began to form sub-systems based on the subordination of sounds and their hierarchy. Microtonal phenomenon appeared for the first time as a multiplication of 12 tones in the octave by 2, 3, 4 or more, and later – as a new phenomenon discharging equal half-tones. So there appeared a microtonal *metatonicity* by Claude Ballif, combining the features of tonality with tone serialism and containing fixed and free sounds (invariants harmoniques and variants mélodiques, as described by the composer) (Ballif 1992: 30).

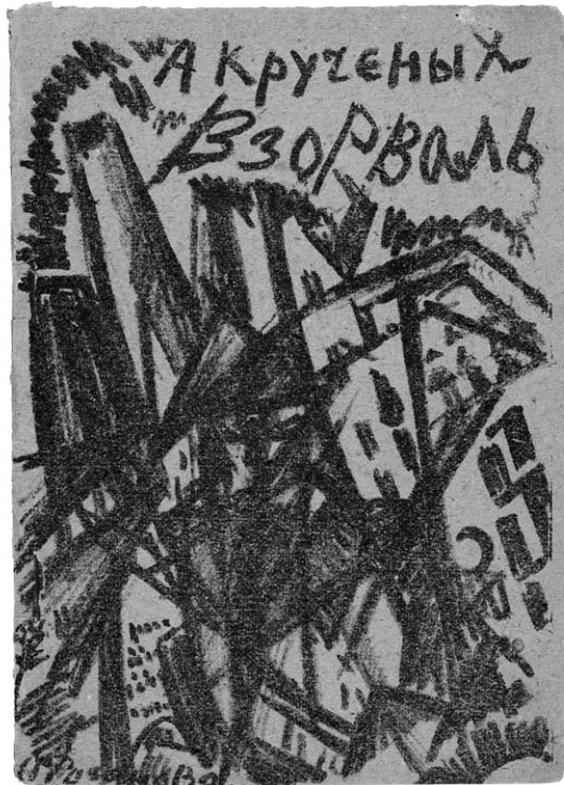
The focus of this article is Russian music between the 1900s and 1920s. This limitation is due to the peculiarities of microtonal music historical path and the need to consider in detail all the processes that took place during an intensive development of this trend.

### Crisis of Art

Microtonal music as one of the key components of a modern composers' language attracted the attention of musicians, physicists and acousticians from the second half of the 19th century. In an effort to expand the 12-tone equal temperament they invented a fundamentally new approach to sound. If the pre-Bach's era contained multiple temperaments and this was a natural phenomenon, then with an appearance of the system, where each octave is divided into 12 mathematically equal intervals (semitones), a new axis of coordinates was established and strengthened for centuries in creative practice. Microtonal music emerged as an alternative to the dominant sound framework. As a result of such a historical disposition of sound space principles in the Western tradition, microtonal music began to be understood as pitch systems other than the 12-tone equal temperament. And due to the extensive practice of tone division, the term "microtone" appeared as a contrast to a "semitone".

This method of division and fragmentation, truly characteristic for the era between the 1900s and 1920s, was marked in 1917 by Nikolay Berdyaev in a public lecture *The crisis of art*: "The corporeal world is shaken to its foundations" (Berdyaev 2006: 361). Pointing to Picasso, the philosopher stated, that "mysterious space spreading" and analytical division are happening now. Artists examine the skeleton of things, hidden solid forms behind the frame. This phenomenon Berdyaev calls "dematerialization, disembodied painting" (ibid.).

The process of fragmentation caused particular changes in two arts often combined into a synthetic whole: literature and music. There was research for the specific principles of text formation and the separation of phonemes and sound, its fragmentation and dissection. Poets and musicians addressed science in order to find the tools of the world



Example 1. Alexey Kruchenykh, *Vzorval'* (*Explosion*, the cover of a book, published in 1913)

and matter cognition. They were inspired by science dealing enthusiastically with the division of the whole into parts.

If in poetry one can clearly trace a tendency of words into phonemes distortion and phonematic combinations, then in music the research for the shortest distance between two adjacent semitones led to the deepening of the sound structure. Thus both sides tried to seek out radical ways for the attainment of 'free art' (Kulbin 2006: 547–548).

In poetry and in music the processes of division were not limited to the phoneme and sound. The musical integrity of construction was split, as in the dissection of an object and space in a painting. The composition was divided into tiny fragments, staff as itself does not exist in the texture. There are only sound blurs, splashes, bursts. Such an example one can find in *Forms in the Air* by a Russian futurist Arthur Lourie, first performed in 1915.

Between 1910 and the 1920s musicians introduced the idea of using overtone series as a source for new systems creation for the first time. This idea was picked up by composers interested in the structure of sound who went deeper into the harmonics and different frequencies. The phenomenon's origin, later considered as 'spectral music', was established by composers, music theorists, physicists and acousticians who developed these new systems at the beginning of 20th century. Even the notion of 'caesura', which in Latin means 'cut', moves from the category of applied tools to formative ones.

The model, incorporated into the work, becomes very important, if not the crucial element. "After reading, cut!" – advised Russian writers Alexey Kruchenykh and Velimir Khlebnikov. This was an appeal hiding not only in the protest against the notion of 'eternal,' but also the principle of a new construction and modeling, advised to the reader (Kruchenykh, Khlebnikov 1999: 49).

"Every art begins with a survey of its sphere, with a delimitation of its elements," declared the German psychologist Albert Wellek in an article on quarter tones. In any language there are a limited number of words, in painting there are a limited number of colours. The number of words and colours can be infinite, although no one comes to the idea of using them all in one work (Wellek 1926: 231). Similar selection occurs in music, forming a system of tones. Experiments on the structure of sound extended horizons. The choice of sounds for a particular musical system expanded and a new problem appeared: what rules should be used then? Where are the boundaries of the division and fragmentation? What can a human ear perceive?

Two temperaments – 53 and 24 – became the most popular among composers and theorists in the early 20th century. The first one divided an octave into 53 equal parts, each of them had a frequency of  $21/53$  or 22.6415 cents (the so-called 'Arabian comma'), and the second temperament was obtained by the multiplication of 12-tone equal temperament into two. The 53-tone system was perceived as more innovative, close to just intonation, while the 24-tone system only strengthened the dominance of semitones.

Wellek highlighted a detail which is very important for the process of tone division. The contemporary human ear, which was educated on an equal 12-tone temperament, will perceive the same twelve tones, even when it is implemented by untempered sounds (like an untuned piano). According to him, our brain unconsciously adjusts those addition sounds. Such a problem did not only appear with regard to the advanced temperament. Any deviation from the usual sounds, even within a well-tempered system causes outrage and rejection whether it refers to special conditions for the emergence of dissonance, or the legalization of aleatoric music. In this respect, sound number increase was only one phase of evolution, however, that was such a development for which one required about fifty years of adaptation.

### Historical Shifts

The history of microtonal music in Russia can be divided into three phases: the aesthetical, analytical and practical. If poetry and prose immediately followed the declaration (for example, linguistic experiments in language creation gave a birth to 'zaum', used by futurist poets), the music process was much more complex. It was necessary to understand

the role of predicted changes, and to find ways for their implementation. Studies of the 1990s and 2000s repeatedly discussed tendencies of the first avant-garde musicians and futurists that led to destruction and fragmentation, and only later to the combination and implementation of signs (Jurkov, 2003: 188).

In Russia, the idea of microtonal music was first proposed in a published source in 1909 by the philosopher Nikolay Kulbin in his pamphlet *Free Music. The Application of a New Artwork Theory in Music* (Kulbin 1909). In this he formulated the basic principles of music reorganization. Together with Kulbin the process of research for destruction methods was supported by his futuristic colleagues Mikhail Matyushin, Arthur Lourie, Arseniy Avraamov and Leonid Sabaneyev. They created a myth about unlimited music, in which there are no obstacles.

At the same time 1916 brought a crisis in microtonal music. The theoretical material (articles, pamphlets, declarations, and prefaces to editions) was not supported by musical works, and thus it stopped being effective. The first published composition in quarter tones at that time ("Prelude" by Arthur Lourie) could not display all the theoretical concepts and justify them. One required the music production and visual embodiment of declarations, thus it is not surprising that there were doubts about the validity of the experiments conducted by musicians.

The years from 1916 to 1923 symbolized an underground of microtonal music. It was then that musicians made an attempt to justify the division of tone to microtones and creatively apply it for the first time. It was very typical of that time to see debates between musicians, such as Avraamov and Sabaneyev, in leading periodicals. While expressing their own ideas about the concept of microtonal music, the technology and ways of its existence, and arguing with each other and perfecting the techniques of academic language on this subject, they booked music chapters of journals devoted to aesthetic problems and organology for microtonal. In addition, Avraamov and Sabaneyev prepared the theoretical ground for the emergence of new names in microtonal music – Ivan Wyshnegradsky and Georgy Rimsky-Korsakov, composers of the "Circle of Quarter-tone Music".

### Early Microtonal Research

The appearance of *Free Music* by Kulbin in 1908–1909 was symptomatic. It was surpassed by a paper by Ferruccio Busoni *Sketch of a New Esthetic of Music*, published a year earlier (Busoni 1907). It is unlikely that during this time Kulbin managed to become acquainted with Busoni's treatise, as there are no links or references to Busoni in Kulbin's text. However we must say that both works had a decisive

influence on the course of development of Russian and European microtonal thought. Calling the 12-tone system wretched and primitive, both authors took the problem of temperament evolution to the public, talked about the necessity for a revolution, the appearance of eternal harmony and about overcoming obstacles of equal temperament (Busoni 1912: 46). However the ways to eternity, or rather to infinity, Kulbin and Busoni saw differently.

Kulbin, unlike Busoni, was not a professional musician, thus a step towards a revolutionary theory in this area was more than risky. In order to write an article attempting to break all the achievements of classical and romantic composers in the way of equal temperament legalization, it was necessary to act from within musical consciousness, to be aware of the delicate strings of the composition process.

Dedicating the article to 'free music' Kulbin expresses an important point: such music has a great opportunity to influence the listener and cause emotional excitement (Kulbin 2006: 547). Through the reflection on the psychological significance of microtones, Kulbin approaches a correct method of 'free' tones, i.e. microtone usage – the sharpening of subtle boundaries. The question of notation almost does not interest him, as well as the question of the system elements. For him it was enough to insert a new string for a quarter tone to fix the other quarter-tones. However, one of the Kulbin's statements deserves in this aspect special attention. Believing in the possibility to notate quarter-tones as a pattern with rising or falling lines, he approaches the graphical notation, which became one of the major trends of composers in the 20th century.

Kulbin's pamphlet *Free Music* was read but not understood by musicians straight away: during the three years after the date of publication and four years after the time of his first talks on this topic this declaration remained unnoticed. Another Kulbin article *Free Art as the Basis of Life* also passed unnoticed (Kulbin 1910). In this Kulbin attempted to approach an understanding of the quarter-tone necessity from the standpoint of sound acoustic properties. Arguments about overtones led him to the idea of differentiated spectrums, about a complex system of tones for different pitches. This will later be a starting point for future generations of composers developing spectral theory.

During the peak of Futurism, a leading musical position between 1912 and 1915 belonged to Arthur Vincent Lourie (1891–1966), the head of musical part in the artistic cabaret *Brodyachaya sobaka*. He outlined the introduction of quarter tones as the beginning of the new 'organic' era, emerging from the boundaries of the musical forms (Lourie 1915). Philosophical questions related to the origin of quarter-tones he left behind.

Lourie began to act actively with "all sorts of dirty tricks," in 1914, after speaking publicly on 28<sup>th</sup> January in *Brodyachaya sobaka*, where he disclosed questions of

interpretation, overcoming impressionism and the concept of "primitive synthesis." At the same time he performed some of his compositions (*Two Poems* with words from Paul Verlaine and *Three Piano Pieces* with words from the first *Book of Masks*, Op. 13). Later in February he declared a manifesto *We and the West*, written in collaboration with the poet Boris Livshits and the artist Grigory Yakulov. In this they approved the idea of general principles for painting, poetry and music:

- 1) an arbitrary spectrum;
- 2) an arbitrary depth;
- 3) self-sufficiency of tempos as methods of embodiment and rhythms as immutable.

In the column 'special' origins in the music field Lourie offered only two sub-points:

- 1) overcoming of linearity (architectonics) by internal perspectives (primitive synthesis);
- 2) elements substantiality (Livshits 1999: 243–244).

Two weeks after the first manifesto, on 11<sup>th</sup> February 1914 Lourie presented a new paper *The Music of Italian Futurism*, where the 'art of noise' was opposed to 'ultrachromatism' as an alternative tool of musical language reformation. And finally, in 1915 there appeared a futuristic anthology *Strelets*, where Lourie published his manifesto *Towards Music of Higher Chromatism* (Lourie 1915: 81–82), organically complementing the work of Kulbin.

In 1915 stating publicly about newly-chromatic music and publishing a composition in microtones for the first time in Russia, he gave them all his energy, and never returned to his futuristic youth later.

Determining the shortest distance between tones as 'the highest chromatism,' Lourie tried to find a 'superlative' term in order to isolate the phenomenon, to identify its superiority compared with other concepts of the same class, designating a particular quality of the 12-tone system. The publication of the *Prelude for Piano with Higher Chromatism* was preceded by a preface *Towards Music...* one page long. As such, it is also a manifesto. The author does not address the need to introduce quarter-tones, starting immediately with a practical solution to problems, elaborating notation and the fixation of micro-elements.

Artists, in his opinion, ought to abandon traditional ideas about evolutionary continuity in favour of building a new concept of art with no regards to previous conquests (an obvious influence of Busoni and Kulbin's ideas). Lourie dreamed of creating a technique that with microscopic precision would fix a creative idea and at the same time have simplicity.

In the case of quarter-tones Lourie proposed three new accidentals: ascending  $\frac{1}{4}$  tone  $\sharp$  (quartièse), descending  $\frac{1}{4}$  tone  $\flat$  (quart'moll), and desalteration  $\natural$  (demi-becarre).

*Prélude  
(pour piano et lucarne sur un microtonal) Arthur Lourie, op. 1212*

Piano  
avec la  
Chromatine  
supérieure.

à tempo

poco rallent.

pp

Example 2. Arthur Lourie, *Prelude for Piano with Higher Chromatism*

If there were ascending  $\frac{3}{4}$  tone, quartèse or quart'moll were adding to normal sharps or flats.

The composer gained fame as an innovator when he published the *Prelude for Piano with Higher Chromatism*. The German microtonal specialist Richard Stein, who presented a report on the current trends of microtonal music in the West in 1922, mentioned that Russian music had its microtonal adept Arthur Lourie. At the same time the magazine *Strelets*, where Lourie published his work, invited Nikolay Kulbin to submit an article for publication. In the article *The Road of a Listener to Calvary* (reminiscent of Alexey Tolstoy's trilogy) in one of the highlights of his fiery speech, Kulbin supported Lourie, saying: "Is there the end to trials? No, Russia declared quarter-tones and 'free music' with no staffs" (Kulbin 1915: 197).

Mikhail Matyushin (1861–1934), an absolute favourite in futuristic associations, gained fame among colleagues

as an artist and a theorist of painting, who worked with the mathematician Pyotr Uspensky on the theory of the "fourth dimension" and the idea of "extended look." Supporting the manifesto of Lourie *We and the West*, he opens his article *An Experience of an Artist of New Standards* with reflections on a fundamentally different perception of space ("motion and an object in it") (Matyushin 2006: 484). In addition to his artistic experience, from 1913 Matyushin publicly announced himself as a composer: he had already contributed a significant part of the music for the synthetic opera *Victory over the Sun*. However, despite the success of the collective opera enterprise, no one took Matyushin seriously as a musician.

Kulbin introduced him to futurists, he participated first as an artist in the exhibitions of the Society of New Artists (*The Impressionists*, 1909), and later rallied to a new progressive social group Union of Youth (1910).



reach the whole spectrum of sound, to make the palette of colour daintier and more refined. His idea fixe was realized in the piano of the well-studied 53-tone temperament at that time, which is very close to a natural scale.

Scriabin was familiar with the works of Russian futurists – artists, poets and musicians. He was especially attracted by Velimir Khlebnikov's word creation process, which was not surprising. He had an ally in the poet. As it turns out, "one can create new words as we create in music new harmonies and forms" (Sabaneyev 2000: 290). The composer visited the Petersburg apartment of Vyacheslav Ivanov (in *Tower*), his music was performed in the hall of Tenishev College, and the last solo concert was held in the editorial office of *Apollo* in 1915.

Scriabin's ideas were spread among more than one generation of musicians. Each of them created a universe and learned ways to break the conservative canons. Leonid Sabaneyev (1881–1968), the musicologist, critic and composer, was one of Scriabin's followers and friends. He created two books about Scriabin, based on his diaries – a monograph (1916) and memoirs (1925), which sought to reveal the unknown depth and fullness of the composer's inner world. Following Scriabin, Sabaneyev believed that the main task of the microtones introduction was not to destroy a system but to enrich it.

Starting from 1911 the journals *Muzyka* and *Muzykalnyi sovremennik* joined the polemics about microtonal music. Kulbin published articles about ultrachromatism and the problems of microtonal music. Exactly then Arseny Avraamov (1886–1944) appeared on the scene, he was a prominent music critic and writer under the pseudonym *Ars*. He was an adventurer and ardent revolutionist, who once had the desire to burn all pianos for the sake of art,

which symbolized for him Bach's temperament. With the help of microtones he planned to break away from the traditional system of tones and to use a variety of chords. In Petrograd in 1917, Avraamov, along with the engineer-inventor Evgeny Sholpo (1891–1951) founded the Leonardo da Vinci association where they put forward their idea about technological music, which did not need performers at all. The result of their work was the invention of a drawn sound technique. With the help of ultrachromatism Avraamov planned to get out of "two hundred years deadlock – equalness" (Avraamov 1916: 2).

The two musicians discussed the most acute problems. Among the heroes of their debate were

*Bach:*

– "For ultrachromatic composer <he> is the greatest criminal in the face of history, stopped two centuries logical evolution of sound, maimed hearing ability for millions of people, <he is> the greatest egoist who has sacrificed the future of art in sake of his own works etc etc ..." (Avraamov 1916: 158);

– "The essence of music in that it lives, that it sounds, live in it, that ultrachromatism has long existed in music as minimum intonations of expression and dynamism, as an essence of all music (including Bach's ones, so hateful by Avraamov) is ultrachromatic because every harmony, even the simplest one is ultrachromatic" (Sabaneyev 1916: 101).

*Scriabin:*

– "For Scriabin there existed only 12 piano keys, and never mind how we notate them – it is almost indifferent, as there is no Scriabin's music without a piano" (Avraamov 1916: 166);

– "I say that all music is ultrachromatic, that Bach and Scriabin are equally ultrachromatic" (Sabaneyev 1916: 102).

## ПИСЬМА О МУЗЫКЕ.

### I. Ультрахроматическая полемика.



Ультрахроматизмом занялись, онъ входитъ въ моду и употребленіе — я это чувствую. И среди „ультрахроматическихъ дѣятелей“ г. Арс. Авраамовъ является однимъ изъ наиболее горячихъ проповѣдниковъ грядущаго освобожденія музыки отъ тисковъ темперации.

Казалось бы, мнѣ только и остается, что съ нимъ заключить „союзъ наступательный и оборонительный“? А между тѣмъ, изъ ряда его ультрахроматическихъ выступленій я опредѣленно усматриваю, что наши убѣжденія почти что противоположны и мы, въ новомъ невѣдомомъ планѣ ультрахроматизма, грозимъ стать врагами, а не союзниками.

Я имѣю въ виду его статьи въ „Музыкальномъ Современникѣ“ — о Полнохордѣ и по поводу Скрябина — объ „Омнитональности“ и ультрахроматизмѣ въ примѣненіи къ этому автору. Изъ этихъ двухъ статей я заключаю, что г. Авраамовъ отъ ультрахроматизма ждетъ чего-то совсѣмъ иного, чѣмъ я, и что самый подходъ его къ музыкѣ и къ искусству не тотъ, что у пишущаго эти строки.

Г. Авраамовъ поражаетъ меня прежде всего тѣмъ, что его помыслы о музыкѣ совершенно чужды художественнаго созерцанія. Онъ — не художникъ, а только ученый, оперирующій со звуками — область соприкосновенія чисто внѣшняя. И посему, толкуя другъ съ другомъ о музыкѣ, мы можемъ легко оказаться въ положеніи взаимно непонимающихъ, ибо для пишущаго эти строки музыка — прежде всего и послѣ всего искусство, таинственная и могучая магія, и лишь между прочимъ (что только интересно и „занятно“ — но не болѣе) имѣетъ какія то отношенія къ акустикѣ и къ „наукѣ о звукѣ“.

Example 4. Leonid Sabaneyev, *Ultrachromatic Debates*

Its length was twice as long as the traditional one (where usually one could find *cis* in the new design there was quart-diesis). For 'neodiatic' he invented an 11-line stave (bulky, hard-to-read), and implemented the Russification of notes. Soon there appeared new accidentals † and # when ascending, ♮ and ♭♮ when descending to ¼ and ¾ tones respectively. Quarter-tone signs were the only things that remained in his work.

### A New Era. Circle of Quarter-tone Music

A new era opened in the history of microtonal music in 1920. The first wave of enthusiasm had gradually passed, and it was replaced by deep concepts, attempts to realize ideas of the past and to formulate their own vision of art. At the microtonal 'helm' of those years was the one whose name was the least associated with the contemporaries of avant-garde – Georgy Rimsky-Korsakov (1901–1965), the grandson of a famous composer. The composition process was for him not just a matter but the meaning of life. In his heritage we can find a symphony, a poem for orchestra, numerous songs, piano miniatures and music for films.

In the Petrograd Conservatory in 1920 and 1921 a spirit of creativity filled every class. At the time the composer's and piano departments formed two strong schools, which were headed by Maximilian Steinberg and Leonid Nikolaev respectively. In the first group of students one could find Dmitri Shostakovich and his close friend, critic and composer Valerian Bogdanov-Berezovsky, as well as their classmate Alexander Veprik. In one group with them there were Avenir Monfred, Vladimir Andreyev, Mikhail Mikhailov and Peter Ryazanov. Nikolaev's class also shone with the names of: Maria Yudina, Vladimir Sofronitsky, Pavel Serebryakov, Elena Scriabina, Galina and Marianna Gramenitskiys, Yuri Sander, Alexander Kamensky, Joseph Schwartz, Herman Beek and Isaiah Renzin.

In the spring or summer 1923 some of these students formed G. Rimsky-Korsakov's group which was fond of cutting-edge trends. This union was entitled the *Circle of Quarter-Tone Music*. This formation was unique in Russia at the time. Information about its existence instantly got into the press, and articles or notes began to appear in Russian and Western journals. In December 1923, a review was published in *Muzykalnaya nov'* which showed the musical circles in Petrograd. The article, which was mainly dominated by the Circle of Chamber Music Lovers, also gave a brief description of the Quarter-Tone Circle (Krasnukha 1923). In particular, the Quarter-Tone Circle is flatteringly compared to the Composer Circle: they were noted for moral intelligence, serious research work and exploring the unknown. The author of the review, Grigory Krasnukha, wrote about three sections of the Circle's work: theory, composition and performance.



Example 5. *Muzykalnaya nov'*. The cover of the journal

The head of the Circle, who also took part in all three sections, was Georgy Rimsky-Korsakov. By the time the Circle was organized, Rimsky-Korsakov, who was still a student, had advanced his theory – the basis of the musical quarter-tone system: its beginnings and necessity.

The secretary of the Circle was Alexey Pozdneev (the dates of his life are not available). He was one of the first among the members, to bring up the question of the primitiveness of using "old"-music principles on quarter-tones. He considered that a fundamentally new system of musical thinking had to appear. "He really thought that until a new system is found and accepted by composers, nothing written in quarter-tones will have the right to be called quarter-tone music"<sup>2</sup>. The new system, in Pozdneev's opinion, was based on the acoustic and physical features of overtone scale.

*The composition section actually consisted of three people.*

Nikolay Malakhovsky (1892–1942) like G. Rimsky-Korsakov was interested in Scriabin's idea of son et lumiere; he also constructed a sound and light clavier, which was shown at the Conservatoire and at the Institute of History and Fine Arts. His device had eight coloured lamps, which were not as bright as the ones of Scriabin's device, but it helped G. Rimsky-Korsakov decipher the colour keyboard part in Scriabin's "Prometheus" (Rimsky-Korsakov, 1926).

Alexander Kenel (1898–1970) was average in his studies, but was enthusiastic about innovation. Once, after an exam in 1924, Alexander Zhitomirsky, his teacher of composition, wrote a contradictory reference

about Kenel: “He has talent. He is a modernist. He tries to write accompaniments in the manner of the assigned melody. He has gaps in his knowledge. He attends lessons conscientiously. His successes are only average” (Zhitomirsky, 1924). These seemingly contradictory qualities made up Kenel’s personality.

The third, and of course, main member of the Circle was Georgy Rimsky-Korsakov.

The small number of the Circle participants was compensated for by other members, whom Rimsky-Korsakov was in intensive correspondence with: Alois Hába, Ivan Wyschnegradsky, Julian Carrillo and Jörg Mager.

Circle activities were numerous from its inception. When performers were acquired, they entered the so called Ensemble of Quarter-Tone Music Lovers. The backbone of the Ensemble consisted of pianists and composers, who were conservatoire pupils. The pianists were Georgy Rimsky-Korsakov, Dmitry Shostakovich (who intended to write something using the quarter-tone system) and Sofia Chicherina; the harmonium performers were Nikolay Malakhovsky and Leonid Portov. Others who occasionally took part were Ilya Musin, Liya Zelikhman, Pavel Berlinsky and Alexander Kenel.

The Circle’s life was very active. They were working towards public concert-presentations that started to be regular in 1925. Receiving works of Western microtonal composers, they introduced them for the first time in Leningrad and in Moscow. The works of Rimsky-Korsakov and Malakhovsky enriched the musical heritage of the Circle.

Armed with the experience of their colleagues, Rimsky-Korsakov began to develop his own system of quarter-tones. Symbolically, the article *Basis of the Musical Quarter-Tone System* was published in 1925, ten years after the publication by Matyushin and Lourie of their works (Rimsky-Korsakov 1925). Circle members treated this work as a kind of ‘microtonal language technique.’

First of all, Rimsky-Korsakov suggested a new quarter-tone designation: using Latin letters with the addition of *t* and graphic markings, partly borrowed from Ivan Wyschnegradsky (when it rises) and his own invention (when it falls.)

Quarter-tones	Georgy Rimsky-Korsakov	Ivan Wyschnegradsky	Nikolay Malakhovsky	Mikhail Matyushin	Alois Hába
a ¼-tone higher, than c	†	†	†	♯	♯
a ¼-tone higher, than cis	##	##	##	##	##
a ¼-tone lower, than c	q (q)	ℓ	∩	ℓ	ℓ
a ¼-tone lower, than ces	Φ	bℓ	b∩	bℓ	bℓ

Example 6. The summary table of quarter-tone notation

It was especially convenient for polygraphy, where it was no longer necessary to include new signs).

Latin designation of quarter-tones using C as an example

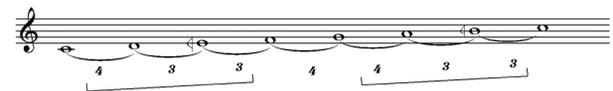
When rising: C – Cit – Cis – Cist

Whenfalling: C – Cet – Ces – Cest

Georgy Rimsky-Korsakov suggested naming his new-found 24-tone scale as ‘mornyi’ (lat. *mora* – is a term from antique prosody which was used for the smallest distance between neighboring tones designation).

Quarter-tone presence in a traditional major-minor system allows one to put into practice new terms such as the neutral triad, which is exactly intermediate between major and minor triads, the intermediate chord, where every tone is exactly in the mid-point to its neighboring ones, nine types of triads.

Much interest lay in the classification of ‘modified’ church modes: ioniodorien, ioniolydien and ioniphrygien modes.



Ioniodorien



Ioniolydien



Ioniphrygien

Example 7. Georgy Rimsky-Korsakov. Modes

The last one, according to Georgy’s opinion, was the best one for the connection, via the neutral triad modulation circle, of all 24 tonalities of mornyi temperament and for the system of relative tonalities. Just as in the equal-tempered system a scale divides into major and minor, here Georgy Rimsky-Korsakov suggests four types of 10-tone natural scale: major, neutral, bineutral and minor scales.

Georgy Rimsky-Korsakov himself and his quarter-tone followers used this system of notation, which of course appeared with influences from leading European quarter-tone composers (Alois Hába, Richard Stein, Ivan Wyschnegradsky and others). Articles by foreign experimentalists were published in the journal *K novim beregam* in 1923 in one volume. These are *The Harmonic Basis of the Quarter-Tone System* by Hába and *Quarter-Tone Music* by Stein (*K novim beregam* 1923). Only the marginal character of the Circle participants did not allow Rimsky-Korsakov’s system to be developed. Thus, his ‘qualifier formula’, a mathematical relationship between the number of sounds of music system

and the size of intervals forming modulation circles in it, had, according to one reviewer, to “play an important role in the theory of musical systems of all kinds, and in particular quarter-tone one” (Renchitsky 1926: 76).

### Moscow Group of Researchers

An alternative to the Leningrad Circle was proposed by the research department of the Moscow State Institute of Musical Science (GIMN). It was founded by Nikolay Garbuzov in 1921 and fully completed its existence by the end of 1920s. This institution included the following researchers – scientists, philosophers, musicians: Pyotr Zimin, Georgy Konus, Pavel Leiberg, Alexey Losev, Leonid Sabaneyev, Boleslav Yavorsky and others. Pyotr Renchitsky became a deputy chairman of the Institute.

Pyotr Renchitsky, Pavel Leiberg and Emil Rozenov developed a 53-tone temperament, proving its superiority among the others: based on 53 tones, it can be equal or unequal. They studied temperament as a compromise between practically impossible theoretical principles and contemporary requirements. The necessity of its appearing they explained by physical capability of our ear to idealize what we hear, to supplement not clearly ‘tuned’ intervals.

The choice of 53-tone temperament was evident in the 1920s. It was the maximal number of tempered tones in an octave, which by that time was achieved with a help of musical instruments with restricted the temperament. The practical use of this temperament, according their thoughts, had to replace the 12-tone temperament particularly in the case of using orchestral instruments.

Pavel Leiberg was a scientist, physicist, inventor and musicologist. He mostly researched the 48-tone temperament, and argued with Georgy Rimsky-Korsakov in terms of these temperament errors, he absolutely disagreed with using a 24-tone system, regarding it as too narrow and a bad transition of harmonics of the 5<sup>th</sup> octave.

It was important that members of the Institute organized an acoustic laboratory and a laboratory of mechanical and musical instruments. A Special commission of the new tonal systems development also appeared. It reviewed:

“1) a natural overtone and undertone 17-tone modulation system proposed by the Chairman of the Commission Emil Rozenov, a project of harmonium with three manuals and transposition devices,

2) mobile 28-tone triad-fifths modulation system with the project of a keyboard and mobile shaft for transposition, and

3) 53-tone equally tempered system with the project of harmonium and four-manual keyboard proposed by Leonid Sabaneyev” (Pyat let 1926).

They created articles, papers and research treatises about new systems:

Emil Rozenov – “Review of works of the Commission of the new tonal systems”, “Analysis of temperament from 12 to 48 tones by the method of Rimsky-Korsakov”;

Pavel Leiberg – “About the harmonium in 41-tone temperament”;

Pyotr Renchitsky – “24-tone equal music system, as an extension of vernacular temperament”, “Possible acoustic interpretations of the harmonies admissibility in the latest semitone and quarter-tone music”, “Diatonic and chromatic sounds in just intonation”, “Musical sound and its physical features”, “Materials on sound-colour correlations”, “A comparison of the two exact tunings – Pythagorean one and Just intonation”, “On the temperament.”

In the list one should highlight articles by Avraamov presented in the GIMN: “Detemperamentation of music”, “Ultrachromatism”, “Universal system of tones.”

The work of the Institute did not contain a creative part, however, it was revolutionary. The collection of Russian microtonal works of the beginning of 20<sup>th</sup> century, in contrast to the theoretical part, was extremely poor. There are several works by Matyushin, Rimsky-Korsakov, Lourie, Malakhovsky and Wyshnegradsky (before emigrating in 1920) – this list is quite limited.

### Conclusion

In 1938, the English composer Alan Bush wrote an article commissioned by the Russian magazine *Soviet Music*. This article was about modern musical trends in Europe, which revealed a very characteristic feature of that time – the lack of uniformity in prevailing styles in music and composition techniques, he noted negatively a dominance of the antitonal phenomena. He was evidently confused by new scales (transformed or invented), arbitrary or total control. “Modern Western composers apply ‘new’ scales – either borrowed from folk music (or strongly changed), or ‘invented’ by a composer, – usually consisting of twelve semitones of a tempered octave” (Bush 1938: 93). The group of ‘folk composers’, according to Bush, consisted of Bartók, Bloch, Stravinsky, Williams and partly Ravel. The group of ‘inventors’ was represented by Casella, Hindemith, Schoenberg and Hába. The last one was punished because of his arbitrary use of intervals from twenty-four equally tempered quarter-tones.

Of course, it was difficult to expect logic and order in the field of innovation. Apparently chaotic systems, inventions and revolutionary concerts as part of microtonal movement were united in its idea. These eclectic phenomena just testified to the diversity of approaches to the resources.

In the 1920s, a time of rapid and brilliant development of microtonal music, microtonal music also ended. With the beginning of 1930s it was succeeded by reaction time and adaptation of the inventions of the past.

The history of Russian microtonal music was interrupted when it was at the apogee of development. Each year it speeded up, increased its requirements for experiments and multiplied the number of interested researchers and musicians. The projects described, composers' systems and works are the main indicator of the intensity of creative thought. In case of the Russian version of the idea, the leading position belonged to the interest in musical sound secrets, its quality and role in the development of musical language. The usage of a quarter-tone system seemed to innovators the only possible way to extend the 12-tone temperament between 1900 and the 1920s. Timid attempts to introduce 53 tones in the octave were not successful. However, it is important to summarize: the challenge of composers and theorists was supported by all who wanted to expand semitones.

Undermining the foundations of temperament, announcing a new, free music, they made a significant contribution to the progress of the development of art. Microtonal music is one of the key changes made during the first wave of avant-garde. The history 20th century music shows the gradual adaptation of new temperaments as a part of composer's language.

Microtonal music has no beginning and no end. It has always existed, hiding behind different concepts, terms, or the absence of a definition. We are unable to find a reference point. Rather it is possible and necessary to speak about a new understanding and perception of this phenomenon. After the Spanish philosopher Miguel de Unamuno, microtonal music may be referred to his concept of 'intra-historia.' History, as a set of passing and disappearing events, is the major tide. Although there is always a parallel history – intra-historia, inconspicuous life, deeper layers of memory. These layers, we must admit, are hiding microtonal music.

## References

- <sup>1</sup> More on this subject see: Reinhard 2009.
- <sup>2</sup> The letter from G. M. Rimsky-Korsakov to I. A. Wyschnegradsky, near 1924 (see: PS. Rimsky-Korsakov).

The research is made with a support of Russian Foundation for Humanities and Sciences (RGNF), project 13-04-00427.

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### Santrauka

Į mikrotoninę muziką galima žvelgti kaip į visos muzikos istorijos kontrapunktą. Šis reiškinys visuomet buvo Vakarų muzikų akiratyje, nors jo specifinis vaidmuo ir vieta globaliame kontekste vis dar laukia deramo įvertinimo. Straipsnyje daugiausia dėmesio skiriama XX a. pirmo–trečio dešimtmečio Rusijos muzikai, kuri tuo metu labai sparčiai žengė atsinaujinimo keliu, verždamasi už nusistovėjusių ribų ir ieškodama naujų riboženklių. Mikrotoninė muzika buvo vienas svarbiausių modernios kompozicinės raiškos elementų, nuo XIX a. antros pusės ji ypač traukė muzikų, fizikų, akustikų dėmesį. Siekdami praplėsti tolygiosios dvylikalaipsnės temperacijos galimybes, jie suformavo visiškai naują požiūrį į garsą. Aptariamam laikotarpiui daugelis menininkų ieškojo naujų visumos sudarymo ir dalijimo būdų. Šio proceso skatinami pokyčiai labiausiai paveikė muziką ir literatūrą. Buvo ieškoma specifinių teksto formavimo principų, kalbos garsai (fonemos) atskirtos nuo kitų garsų, o šie toliau fragmentuojami ir skaidomi.

Mikrotoninės muzikos istoriją Rusijoje galima suskirstyti į tris laikotarpius: estetinį, analitinį ir praktinį. Pirmasis mikrotoninės muzikos idėjų Rusijoje išskėlė filosofas

Nikolajus Kulbinas teoriniame veikalė „Laisva muzika“, išleistame Sankt Peterburge 1909 m. Jame filosofas suformulavo pagrindinius muzikos pertvarkymo principus. Drauge su Kulbinu jo kolegos futuristai – Michailas Matiušinas, Arthuras Lourié, Arsenijus Avramovas ir Leonidas Sabanejevas – ieškojo būdų, kaip griauti nusistovėjusią tvarką. Jie sukūrė mitą apie laisvą, tradicijoms nepaklūstančią natūralią muziką, kurios nevaržo jokie apribojimai.

Kad ir kokie drąsūs siekiai buvo, 1916 m. mikrotoninės muzikos žanrą ištiko krizė: straipsniuose, pamfletuose, pasisakymuose skelbiamos teorinės idėjos niekaip neatsispindėjo muzikos kūrinuose ir ilgainiui nustojo aktualumo. Pirmoji išspausdinta ketvirtatonių kompozicija – Lourié Preliudas – negalėjo atskleisti visų teorinių koncepcijų ir tapti praktiniu jų įrodymu. Trūko muzikinės kūrybos, kuri apčiuopiamais pavidalais įkūnytų tas deklaracijas, todėl pradėta abejoti muzikų eksperimentų pagrįstumu.

1916–1923 m. mikrotoninė muzika pasitraukė į pogrindį. Kaip tik tuomet muzikai pirmąsyk pamėgino kūrybiškai pagrįsti tonų dalijimo į mikrotonus teorines prielaidas. Labai būdinga šiam laikotarpiui yra vieša diskusija, užsiėmusi tarp kompozitoriaus Avramovo ir muzikologo bei muzikos kritiko Sabanejevo, spausdinama didžiausiuose to meto periodiniuose leidiniuose. Dėstydami įvairias idėjas apie mikrotoninės muzikos sampratą, technologijas ir apraiškas, ginčydamiesi ir gludindami savo akademinės retorikos techniką, jie užpildydavo žurnalų, skirtų estetikos ir organologijos problemoms, skyrius. Negana to, Avramovas ir Sabanejevas parengė teorinę dirvą naujai mikrotoninės muzikos kūrėjų kartai – Ivanui Vyšnegradskiiui, Georgijui Rimskiui-Korsakovui ir į Ketvirtatonių muzikos draugiją susibūrusiems kompozitoriams. Straipsnyje taip pat aptariami Maskvos valstybinio muzikos mokslo instituto (GIMN) tyrimai muzikinės darnos srityje.

Rusų mikrotoninės muzikos istorija nutrūko vos pasiekusi savo raidos apogėjų. Kasmet ši raida vis spartėjo, augo eksperimentams keliami reikalavimai, daugėjo šia sritimi susidomėjusių tyrinėtojų ir muzikų. Straipsnyje aptariami projektai, kompozicinės sistemos ir kūriniai rodo ypatingą kūrybinio mąstymo intensyvumą. Vienas svarbiausių rusiškosios mikrotoninės muzikos versijos siekių buvo muzikinio garso paslapčių atskleidimas, gilinimasis į jo kokybę ir vaidmenį muzikos kalbos raidoje. XX a. pirmaisiais dešimtmečiais ketvirtatonių sistema rusų novatoriams atrodė vienintelis įmanomas būdas praplėsti tolygiosios dvylikalaipsnės temperacijos galimybes.