

ISSN 2658-4824 (Print), 2713-3095 (Online)
УДК 78.01
DOI: 10.33779/2658-4824.2021.3.022-028

MICHAEL KAYKOV

The Manhattan School of Music
New York City, NY,
United States of America
ORCID: 0000-0003-0019-9454
mk875@juilliard.edu

МИХАИЛ КАЙКОВ

Манхэттенская школа музыки
г. Нью-Йорк, штат Нью-Йорк,
Соединённые Штаты Америки
ORCID: 0000-0003-0019-9454
mk875@juilliard.edu

Scriabin's Synesthesia, Demystified

This article examines the latest materials related to Scriabin's synesthesia, that is, his associations between sounds (tonal areas) and colors. This is often referred to as color-hearing, sound-color and tone-color associations in the literature. Scriabin's biographer Leonid Sabaneyev was the first to discuss the matter, in his publication "O zvuko-tsvetovom sootvetstvii" [On sound-color correlation] (1911, Moscow). Since then, other more reliable sources have emerged, including Scriabin's own color indications penned directly on the score of his *Prometheus Op. 60*, housed in the *Bibliothèque Nationale* in Paris and not widely-accessible.

This article also attempts to debunk some of the myths related to Scriabin's sound-color associations and presents the emerging scholarly perspective on the subject.

Keywords:

Alexander Scriabin, color, sound, synesthesia, late period.

Демистифицированная синестезия Скрябина

В статье исследуются недавно открытые материалы, связанные с синестезией Скрябина — его ассоциациями между звуками (тональными зонами) и цветами. В литературе это часто называют ассоциациями цвета-слуха, звука-цвета и тона-цвета. Биограф Скрябина Леонид Сабанеев первым заговорил об этом в своей публикации «О звуко-цветовом соответствии» (Москва, 1911). С тех пор появились и другие, более надёжные источники, в том числе собственные цветковые пометки Скрябина, сделанные им в партитуре «Прометея», ор. 60, хранящейся в Национальной библиотеке Парижа и не предназначенной для широкого пользования.

В статье также делается попытка развенчать некоторые мифы, связанные со звуко-цветовыми ассоциациями Скрябина, и представлена новая научная точка зрения по этой теме.

Ключевые слова:

Александр Скрябин, цвет, звук, синестезия, поздний период.

For citation/Для цитирования:

Kaykov M. Scriabin's Synesthesia, Demystified // ICONI. 2021. No. 3, pp. 22–28.
DOI: 10.33779/2658-4824.2021.3.022-028.

© Michael Kaykov, 2021

© Publisher: Scholarly-Methodical Center "Innovation Art Studies," 2021

© Кайков М., 2021

© Издатель: АНО ДПО НМЦ «Инновационное искусствознание», 2021

Introduction

Scriabin's color-hearing, or synesthesia, has been the subject of great interest and debate since the March 1915 Carnegie Hall performance of his *Prometheus, Le Poème du Feu*, Op. 60, which featured the *tastiera per luce* (also known in the literature as the *clavier à lumières* or the color organ) for the first time. [1, p. 131]. The *Prometheus* (composed in 1910), was the first composition which contained detailed indications of color in the score, notated on a separate staff.

However, the 1911 first edition score only contained a part (in standard music notation) for the color organ designed under Scriabin's guidance by Alexander Mozer, without any reference to the specific colors projected by the organ. Furthermore, due to technical difficulties, Mozer's instrument was never used for any of the concert performances of this work. [2, p. 2]. The 1915 Carnegie Hall performance (not supervised or attended by the composer) used another design of color organ entirely — the "Chromola" — patented by Preston S. Millar [1, p. 142].

In 1913 Scriabin wrote down extensive instructions (related to color) directly on a first-edition score of the *Prometheus*, something which is now referred to in the literature as the "Parisian score". This document was lost after Scriabin's death and rediscovered only in 1978. On February 13, 2010, the Yale Symphony Orchestra presented the first full production of the masterwork, finally realizing Scriabin's detailed instructions, including tongues of flame, lightning flashes and fireworks, using LED technology [10].

The Evidence of Scriabin's Synesthesia

Several articles dealing with Scriabin's tone-color associations appeared during Scriabin's lifetime. The first publication, titled "On Sound-Color Correlation", was written in 1911 by Scriabin's close friend and early biographer Leonid Sabaneyev (1881–1968). It was referenced by Galeyev and Vanechkina (see Table 1) in their article

"Was Scriabin a Synesthete?", published by The MIT Press in 2001 [4, p. 359]. Anna Gawboy compared Sabaneyev's "tone-color" chart with the corresponding tonal areas of Scriabin's *Prometheus* (Parisian score) and noted that the colors matched.

Table 1.

Scriabin's tone-color associations [5, p. 3]

"Tonality"	Sabaneyev (1911)	Parisian Score (1913)
C	Red	Plain red
G	Orange-pink	Orange (red-yellow), fiery
D	Yellow	Sunny yellow
A	Green	Grass green
E	Glittering dark blue	Dark blue-greenish (light blue)
B	Similar to E	Dark blue with light blueness (light blue)
F#/G ♭	Dark blue, bright	Deep dark blue with a shade of violet
C#/D ♭	Violet	Pure violet
G#/A ♭	Magenta-violet	Lili colored (reddish)
D#/E ♭	Steely, with a metallic shine	Steely blue, metallic
B ♭	Similar to E ♭	Metallic leaden grey
F	Dark red	Dark red

Sabaneyev was an important member of Scriabin's inner circle from around 1910 until Scriabin's death in 1915. He wrote two books about Scriabin: a biography *Skriabin* in 1916, and *Vospominaniia o Skriabine* [Reminiscences of Scriabin] in 1925. However, in recent years, Sabaneyev's credibility has been questioned. Ballard writes in his 2017 book *The Alexander Scriabin Companion: History, Performance, and Lore*:

Trained in mathematics and physics at Moscow University, Sabaneyev's...

approach led him to devise quasi-scientific explanations for Scriabin's artistic experiences, including his color-hearing. In many cases, Sabaneyev's theories led him down the wrong path [1, p. 116].

Furthermore, Sabaneyev's views on Scriabin changed radically throughout his life. In the months leading up to Scriabin's death, Sabaneyev "lost his faith in the transformative power of art and his view of the composer as a spiritual guide. He [later] compared Scriabin's tendency for schematization and rhythmic dissolution to artwork produced by psychiatric patients" [1, p. 118].

The only other important primary source dealing with Scriabin's synesthesia (aside from Sabaneyev's chart and the Parisian score of the *Prometheus*) is an article by the physician and psychologist Charles S. Myers (1873–1946). Myers interviewed Scriabin specifically on the subject of tone-color associations during the latter's visit to England in 1914, and published an article with his findings in the *British Journal of Psychology* [7]. Scriabin himself stated that he became aware of his "colored-hearing" after attending a concert with Rimsky-Korsakov and realized that they agreed that D major "appears" yellow, and this is confirmed in the Sabaneyev/Gawboy chart [Ibid., p. 112]. Scriabin felt that his clearest color-associations were C major (red), D major (yellow), and F-sharp major (blue). Furthermore, he explained to Myers that any single note by itself has no color (yet it is always accompanied by overtones), and that older music such as the Beethoven symphonies evokes a color changing in intensity instead of in quality [Ibid., p. 113].

Galeyev and Vanechkina state that Scriabin's tone-color scheme was likely influenced by his study of theosophy, and that he associated F-sharp major with a "spiritual" realm and C major with an "earthly" and "material" realm. The Myers study and the Galeyev and Vanechkina articles suggest that Scriabin's color-associations were not entirely based on his instinctive synesthetic perceptions, but were formulated on a conscious level. This can explain why he

labels both C major and F major as "red" and contrasts them with the "blue" F-sharp major (a tritone away from C major, the "tritone-link" was an important element of his harmonic system, starting from his *Prometheus* Op. 60). This juxtaposition is also related to the visible light color spectrum, as red and blue-violet are on opposite ends of the spectrum (see Table 2):

Table 2.
The Visible Light Color Spectrum

Color	Wavelength (nm)
Red	625–740
Orange	590–625
Yellow	565–590
Green	520–565
Cyan	50–520
Blue	435–500
Violet	380–435

This is also confirmed by Sabaneyev, who quotes Scriabin himself in one of their conversations:

At first not all the colors were distinctly visible to me. Only some tonalities had given me a sharp image. Fis (F-sharp): blue, bright, dark, saturated, somewhat solemn and complete, the color of Reason. Then it was clear to me that D is golden and sunny, and F — red, the bloody color of Hell. The relationship of the keys, in the circle of fifths, is such that the most closely-related keys are a fifth removed from each other. And, the closest in shade colors are adjacent in the spectrum. The three distinct colors gave me my three fulcrums, the rest I deduced logically [9, p. 237].

All other publications on Scriabin's color hearing — both in Russia and abroad — are secondary sources [4, p. 358]. In summary, Scriabin's tone-color associations were only partially based on his synesthetic perceptions. Curiously, Galeyev and Vanechkina point out that there are several different versions of the

sound-color scheme penned by Scriabin, now housed in the Alexander Scriabin Memorial Museum Archives in Moscow (unfortunately not published as of yet) [Ibid., p. 358]. This also suggests that Scriabin's synesthesia was only a starting point for his elaborate system of tone-color associations.

Possible Sources of Inspiration for Scriabin's Tone-Color Associations

Recent scholarship on this subject has drawn a parallel between Scriabin's synesthesia and color-chart and some of the mystic writings which also inspired other Russian artists of that era. Uni Choi, in her 2020 DMA dissertation "Tracing Color in Scriabin's Piano Music", made the argument that Scriabin's synesthesia was a relatively new concept at the time and did not have much scientific support. She states that Scriabin's tone-color associations may be more accurately labeled as "associative chromesthesia": a neurological ability in which musical tones or tonal areas could be experienced in colors. Myers also referred to it as "chromesthesia". Choi writes:

During the late 19th century, the distinction between physiological and associative synesthesia had not been made. Musicians debated about the ultimate way to represent music in visual form and chromesthesia fit this need. George Field, an English painter and notable contributor to the color-tone theory in the 1840's, believed that colors were arranged similar to music in a chromatic scale. Blue, red and yellow were part of the primary colors... [and] are known to elicit a strong emotional response in non-synesthetes [3, p. 17].

This is also confirmed by Sabaneyev, who quotes Scriabin discussing his color associations: "it cannot be personal, there must be a principle... the essential must be common" [9, p. 26]. Scriabin believed that the associations should be logical and understood by even those without synesthesia. Choi writes: "Scriabin wanted the color-tone

correspondences to be not a personal view, but a shared principle" [3, p. 18].

Recent scholarship suggests that Scriabin's elaborate tone-color system was also largely inspired by his exposure to mystic ideas, through his association with Prince Sergei Trubetskoy c. 1900. Bowers writes:

Aside from his chair as reader in philosophy at Moscow University, Trubetskoy was also president of the Moscow Philosophical Society. However, he was only a shadow through whom shone Vladimir Solovyov (1853–1900), [a philosopher and mystic] who had exhorted Russia to be a nation of god-seeking, god-building 'all-human' belonging to 'all-unity'... Scriabin's [own] philosophy above all else wanted to turn sound into ecstasy [2, p. 1:321].

Scriabin was not alone in his theosophical interests. Many creative artists in Russia felt that a knowledge of theosophy and mysticism enhanced the quality of their works. This circle included modernist painters Nikolai Roerich, Margarita Sabashnikova, and Vasily Kandinsky, poets Konstantin Bal'mont, Nikolai Minsky, Max Voloshin, and Andrei Belyi, as well as philosophers Vladimir Solovyov and Nikolai Berdyaev. Anatole Leikin describes the era in Russian history from the 1890's to around 1914 which is now referred to as the Silver Age:

Moscow became the center of symbolism in Russia. Scriabin's [social circle] included musicians, poets, scholars, philosophers, painters, actors, and stage directors. To them Scriabin was a prophet, and even more than that — a creator, a real divinity. The artists of the Silver Age showed a keen interest in the synthesis of the arts, in mystic revelations and in attempting to understand the great mysteries of the universe [6, p. 2].

In a letter addressed to his lover Tatiana de Schloezer, dated May 5 (O.S. April 22) 1905, Scriabin wrote: "La Clef de la Theosophie [The Key to Theosophy by Blavatskaya] is a remarkable book. You would be astonished how much it has in common with me" [8, p. 19].

In *The Secret Doctrine*, Blavatskaya (sometimes transliterated as Blavatsky in the literature) described a powerful energy called *Akâsa*, a vibration possessing multisensory properties: “Sound is the characteristic of *Akâsa* (Ether): it generates air, the property of which is Touch; which (by friction) becomes productive of Colour and Light” [5, p. 14]. Furthermore, Scriabin was likely influenced by the Blavatskaya’s so-called color metaphors. Uni Choi pointed out that Scriabin’s descriptions of the colors red, yellow, green and blue seemed to be derived from a study of Blavatskaya’s *Secret Doctrine* and other works [3, p. 24] (see Table 3).

Table 3.

Scriabin assimilated many of Blavatskaya’s mystic color associations

Color	Blavatskaya	Scriabin	Summary
Red	Animal instincts and passions	Will of Human	Vigor
Yellow	Breath of, Giver of life	Joy	Warmth and Joy
Green	Animal soul, Nature	Matter (Earthly Matter)	Abundance and Health
Blue	The Higher Mind, Human Soul (spiritual)	Creativity (most spiritual)	Spirituality and Thought

This too, supports the idea that Scriabin’s synesthesia could be more accurately described as “associative chromesthesia”.

Applying “Color-Coding” to Scriabin’s Late Period Compositions

Anna Gawboy, in her groundbreaking article 2012 “Scriabin and the Possible”, came to the conclusion that Scriabin “was a synesthete according to the way the phenomenon was framed during his own time

period, but according to current definitions he was not” [5, p. 3]. His carefully constructed table of color-tone associations was more elaborate and logical than any “spontaneous” association of a “neurological synesthete” (as opposed to an “associative synesthete”).

Myers quotes Scriabin as saying: “the colour underlines the tonality, it makes the tonality more evident” [7, p. 113]. Anna Gawboy analyzed Scriabin’s color indications in the “Parisian score” of the *Prometheus*, and came to the conclusion that color changes are based on “Scriabin’s fundamental-bass analysis of his own music”. Furthermore, Scriabin evidently believed that the harmonies of the *Prometheus* were resistant to purely aural analysis, and that the colors could act as a guide to the harmonic changes [5, p. 7].

In Scriabin’s 3 Etudes Op. 65, written 1911–1912, certain new traits of Scriabin’s late style become apparent. New ways of harmonic thought, with the Mystic Chord as the basis, created a need for a more sparse, clear and in some ways — minimalist piano texture. The harmonies have become more complex, yet the unfolding of the harmonic motion has become far slower. Thus, the fundamental bass line (the root of each sonority) can be easily extracted.

Examining the overall tonal scheme of the Etudes Op. 65 set, one can discover a link between the tonal centers of each etude (see Table 4):

Table 4.

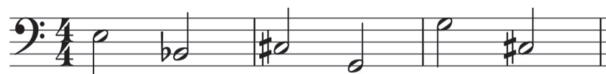
The links between the tonal centers of Scriabin’s etudes Op. 65

Piece	Tonal centers
Op. 65, No. 1	E and B-flat
Op. 65, No. 2	C-sharp/D-flat and G
Op. 65, No. 3	G and C-sharp/D-flat

When mapped out on a musical staff (Ex. 1), it becomes clear that the tonal centers of each etude (there are always two because of the aforementioned tritone-link) belong



to the same diminished seventh chord: G, B-flat, C-sharp, and E.



Ex. 1. Etudes:

Op. 65 No. 1; Op. 65 No. 2; Op. 65 No. 3

Furthermore, Scriabin's late-period harmonies always contain the main fundamental bass, along with its "tritone-link". A possible color-coded analysis of the overall tonal scheme (based on Scriabin's own notes in the Parisian score of his *Prometheus*, would be as follows (see Table 5):

Table 5.

A possible color-coded analysis of Scriabin's Prometheus

Piece	Key	Color
Etude Op. 65, No. 1	E	Dark-blue/greenish, "creativity"
	B-flat	Steely blue, metallic
Etude Op. 65, No. 2	C-sharp	Violet
	G	Orange-pink, fiery
Etude Op. 65, No. 3	G	Orange, red-yellow "human will, joy", fiery
	C-sharp	Violet

One can see that the "color coding" makes sense if compared to the visible color spectrum. In these works, Scriabin (overall) is shifting

between the opposite ends of the spectrum: violet/blue and red/orange (see Table 1).

Summary and Implications for Further Research

This article has presented all the widely-accepted materials dealing with Scriabin's tone-color associations. Anna Gawboy's article "Scriabin and the Possible" contains a detailed color-coded analysis of Scriabin's *Prometheus*, based on the "Parisian score" which is not available to the general public. A study of her article will give greater insight on the way Scriabin planned to use color specifically in his *Prometheus*. As mentioned earlier, Scriabin's indications were not limited to colors but also contained visual effects such as "tongues of flame".

Galeyev and Vanechkina mentioned that the Scriabin Museum Memorial Archives contain unpublished "alternate" color-schemes penned by Scriabin himself. A study of these might clarify how Scriabin's color-schemes evolved, and which elements remained unchanged.

Lastly, an examination and comparison of other synesthete composers is very much needed, this would include: Franz Liszt, Nikolai Rimsky-Korsakov, Amy Beach, and Olivier Messiaen, who are all referred to as "genuine synesthetes" in the literature.



REFERENCES

1. Ballard L. et al. *The Alexander Scriabin Companion: History, Performance, and Lore*. Lanham, MD: Rowman & Littlefield, 2017. 422 p.
2. Bowers F. *Scriabin, a Biography*. New York. Dover, 1996. 636 p.
3. Choi U. *Tracing Color in Scriabin's Piano Music: How Mindfulness of Colors can Enhance the Understanding of the Composer's Musical Language in his Late Piano Poems*. D.M.A. diss. The University of Georgia, 2020. 79 p.
4. Galeyev, B.M., Vanechkina, I.L. Was Scriabin a Synesthete? *Leonardo*, 2001; 34 (4): 357–361. URL: <https://doi.org/10.1162/00240940152549357>.



5. Gawboy A. et al. Scriabin and the Possible. *Society for Music Theory*, Vol. 18, No. 2, June 2012. URL: https://mtosmt.org/issues/mto.12.18.2/mto.12.18.2.gawboy_townsend.php (Access date: 05/10/2021).
 6. Leikin A. *The Performing Style of Alexander Scriabin*. University of California. Ashgate Publishing, 2011. 294 p.
 7. Myers Ch. S. Two Cases of Synaesthesia. *British Journal of Psychology*, May 1914: 112–117. URL: <https://doi.org/10.1111/j.2044-8295.1914.tb00246.x>.
 8. Nicholls S. *The Notebooks of Alexander Skryabin*. Oxford University Press, 2018. 263 p.
 9. Sabaneyev L. *Vospominaniya O Scriabine* [Reminiscences about Scriabin]. Moscow, 1925. 392 p.
 10. Scriabin's "Prometheus" To Be Performed at Yale in Living Color. *Yale News*, January 15, 2010. URL: <https://news.yale.edu/2010/01/15/scriabin-s-prometheus-be-performed-yale-living-color> (Access date: 04/18/2021).
-

About the author:

Michael Kaykov, pianist and educator,
DMA in Piano Performance (Manhattan School of Music),
MM in Piano Performance (Juilliard School),
BM in Piano Performance (Mannes College)
(10027, New York City, New York, United States of America),
ORCID: 0000-0003-0019-9454, mk875@juilliard.edu

Об авторе:

Михаил Кайков, пианист и педагог,
доктор (DMA, фортепиано) Манхэттенской музыкальной школы,
магистр (MM, фортепиано) Джульярдской школы,
бакалавр музыки (BM, фортепиано) Маннского музыкального колледжа
(10027, г. Нью-Йорк, штат Нью-Йорк, Соединённые Штаты Америки)
ORCID: 0000-0003-0019-9454, mk875@juilliard.edu

