

# TWO PERSPECTIVES ON THE MUSIC OF FRYDERYK CHOPIN FROM THE 1920S: LUCIEN BOURGUÈS AND ALEXANDRE DENÉRÉAZ (1921) AND LEONID L. SABANEEV (1925–1927)

This article is an English translation of the German original: 'Die Musik von Fryderyk Chopin in zwei Sichtweisen der zwanziger Jahre des XX. Jahrhunderts: Lucien Bourguès – Alexandre Denéréaz (1921) und Leonid L. Sabaneev (1925–1927)', in Irena Poniatowska (ed.), *Chopin and his Work in the Context of Culture*, vol. 1 (Kraków, 2003), 215–227.

The aim of this article is to reconsider two perspectives on the music of Fryderyk Chopin that have been almost completely forgotten, both dating from the 1920s: one by Swiss theorists Lucien Bourguès and Alexandre Denéréaz, from their book *La musique et la vie intérieure* (especially the chapter ‘Chopin’, as well as other mentions throughout the book),<sup>1</sup> the other in a study of the golden ratio in Chopin’s etudes by Leonid Sabanev.<sup>2</sup> The book by the two Swiss scholars is also available in English in a dissertation by Gloria Bader Merchant.<sup>3</sup> Sabanev’s work is particularly worthy of attention, as it seems to have remained unknown outside of Russia.<sup>4</sup>

My reflections concern the reception of Chopin’s music during the 1920s. It is reasonable to expect that, in the era of modern music, appreciation of Romantic music must have undergone change and that, in addition to traditional approaches to analysis and interpretation, new content must also have emerged.

The focus of research into the music of Chopin changes with time. An array of new theories and perspectives emerge, and perceptions change with regard to the music itself, as it can be viewed as a cultural phenomenon. Of course, it will always be the case that many musicological studies simply follow the established analytical strategies of their time, but other studies will also appear that ask completely new questions. The two analytical positions that I want to discuss are both from the same era. However, they are so different from each other as to seem polarised in their approaches, raising the question of how much either of them can be said to evoke the spirit of their times.

The Swiss theorists Lucien Bourguès and Alexandre Denéréaz describe the structure of Chopin’s music, its qualities, expression and symbolic content, etc. Leonid Sabanev, on the other hand, explores the works in terms of tectonics, looking at relationships between the parts and the whole, i.e. the artwork as a system of proportions. The first method is, according to the authors, a form of psychological research, while the second can be securely defined as formal analysis. One method is descriptive, requiring empathy and understanding, while the other – as a system of precise measurement – is a form of mathematical poetics. Thus the two theories, that of Bourguès and Denéréaz and that of Sabanev, seem very distant from one another, even adopting opposing

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1 Lucien Bourguès and Alexandre Denéréaz ‘Chopin’, in *La musique et la vie intérieure. Essai d’une histoire psychologique de l’art musical* (Lausanne: Bridel, 1921), 431–442.

2 ‘Shopena v osvshchenii zakona zolotogo sechenia. Opyt pozitivnogo obosnovaniia zakonov formy’ [The etudes of Chopin in light of the golden ratio: an attempt to establish a positive foundation of the principles of form], *Iskusstvo*, 1/2 (1925), 132–145 and 3/2–3 (1927), 32–56.

3 ‘A Translation and Critique of “La Musique et la vie intérieure” by Lucien Bourguès and Alexandre Denéréaz. A Psycho-Musico-Aesthetic Study’, University of Iowa, 1961. See also *Dissertation Abstracts* XXII. I, pp. 281–282, vol. I, II, III, PhD, Musicology, Univ. of Iowa, 1962, LC-Mic 61–1931.

4 See e.g. the works list for Sabanev in Larry Sitsky, ‘Would-be Scientist Becomes Critic’, in *Music of the Repressed Russian Avant-Garde, 1900–1929* (Westport, CT: Greenwood, 1994), 291–302. This includes an erroneous comment that Sabanev’s studies on the phenomenology of the creative musical process in Chopin’s etudes may not have been published (*ibidem*, 302).

positions. On the other hand, the two theories derive from the same intellectual sphere; they are two different aspects of the reception history of the same music in the same historical period. The results identify a very specific problem that is well worth considering.

## II

It is not without reason that the title of the work by Bourguès and Denéréaz connects music with the inner, emotional world. They even consider the entire history of music from the perspective of psychological history, and more precisely as positivistic psychology. ‘La vie intérieure’, as a research subject, is closely related to Eduard Spranger’s ‘types of men’ (*Lebensformen*) and his humanistic psychology of personality. It is no longer the purely subjective study of culture (*Sachforschung*), but also a study of the viewers themselves (*Beschauerforschung*).<sup>5</sup>

While the authors describe the characteristic qualities of each musical work, the question of musical form also arises, and most relevantly for us, the issue of form in Chopin. However, with regard to Chopin, the issue of overall form is not singled out as a specific topic for discussion. This could be considered a flaw in the book, but in its defence, I would like to turn again to Eduard Spranger, who writes:

[The naïve aesthetic connoisseur] lives, as it were, in the aesthetic objects and simultaneously experiences both them and himself. If in this condition he is conscious of a manifold, free and unique psychic impulse, he experiences ‘form’.<sup>6</sup>

One chapter of the book by Bourguès and Denéréaz is dedicated to Chopin. Of course, many of the general theses about romanticism in music that appear throughout the text also apply directly to Chopin. But before presenting the ideas that guide their descriptions of Chopin’s music, let us recall some of the fundamental concepts on which their general theory is based.

The theory is based on the notion that emotions are revealed through musical sounds. Music therefore has a specific ‘dynamogeny’, which results in a release of power. Dynamogenic rhythm can be understood as an established sequence of dynamogenies. The sensual aspects of the musical phenomenon must therefore be paramount: musical *cénesthésie* and musical *kinesthésie*. Both have a fundamental effect on our consciousness. And Chopin is a very special case, based on a foundation of acute phonaesthetic stimulation. It can be described as *luxe sonore*, or with the Polish word *blask* [lustre]. And the emancipation from tonal schemes here becomes *rêverie esthétique*, aesthetic rapture.

The authors also discuss musical gestures, and in particular Romantic gestures. It is worth noting that this idea aligns with the

<sup>5</sup> Eduard Spranger, *Lebensformen. Geisteswissenschaftliche Psychologie und Ethik der Persönlichkeit*, 7th edn (Halle: Salle, 1930), 166.

<sup>6</sup> *Ibidem*, 165–166.

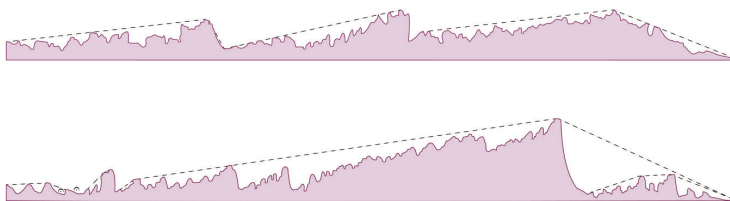
theory of Gustav Becking, which dates from the same period. As Bourguès and Denéréaz write: ‘La musique est une mimique sonore, extrêmement complexe et exacte, des émotions’ (‘Music is an extremely complex and precise mimicry of emotions’).<sup>7</sup>

In the most general terms, we can say that with this theory we find ourselves in the sphere of dynamogenic sensuality, where music is perceived as a dynamogenic, motoric and affective phenomenon.

From these qualities, three different rhythmic levels can be identified, which can be applied to Chopin’s music. In the *Marche funèbre*, they appear:

- in the dynamogenic rhythm, where the *dynamogenies* are powerful and slow
- in the motor rhythm, which is characterised by extreme, but slow, moments of tension followed by moments of deep relaxation
- in the slowly building tensions, which are followed by passages of acute depression – a *tristesse tragique*.<sup>8</sup>

(We recall here the specifically Western appreciation of Chopin’s music, which often invokes words like ‘melancholy’, ‘torment’ or the Polish word *żal* (sorrow).) Let us now look at one such dynamogenic curve in Chopin’s music, in the Nocturne No. 13 in C minor (see Example 1).



Example 1. Dynamogenic curves in a) Chopin’s Nocturne No. 13 in C minor, b) Wagner’s *Tristan und Isolde*, from Bourguès and Denéréaz, *La musique et la vie intérieure*, between pages 368 and 369. Engraving and layout of musical examples and graphics in this article: Piotr Wojciechowski.

We have here an intuitively mapped curve with two peaks, the distances between them in the graphic representation in a proportion of about  $5/9/17$ . The second peak corresponds to the golden ratio, i.e. bar 48 of the work’s 77 bars (it should actually fall on bar 47). The first part is further divided (a second-order division), this time symmetrically, as  $24+24$ .

We now turn to the eight fundamental concepts of Chopin’s style, as defined by the authors:

- continuity
- oscillating motion
- propulsive power
- smooth (*plané*) movement
- affective diversity
- ethereal harmony

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See p. 32.

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See p. 24.

- lustre (Pol. *blask*), glow (Pol. *łśnienie, iskrzenie*). The authors also speak of this music in terms of *luxe sonore*
- pentatonic vibrations (which we might understand as a category of resonance/harmony).

I suspect that nobody before had ever described Chopin's music in such terms. They are categories of musical movement and its dynamic shape, categories of structure. They also show an understanding of the emotional profile of the music. This theory

Example 2: a–f, Bourguès and Denéréaz, *La musique et la vie intérieure*: (a) Ex. 697,



(b) Ex. 702,



(c) Ex. 706,



(d) Ex. 715 and Ex. P. 439,



(e) Ex. 720



comes close to a positivistic interpretation of music, due to the explicitly ‘psychic powers’ it acknowledges.

At the other extreme, in a position that is clearly anti-positivistic, lie the theories of Ernst Kurth, the most influential theorist of the entire era.

### III

Leonid L. Sabaneev considered his 1925 study on the golden ratio – as his subtitle attests – to categorically establish the laws of musical form.<sup>9</sup> His aim, to restore a positive musicology, can also be seen in some of his other writings. It is clearly a rigorous approach, consolidated by mathematical study, including of the golden ratio.<sup>10</sup>

Such an approach by the writer poses a number of problems that cannot be avoided:

- What does it mean when the rule underlying a principle of form is described as ‘positive’?
- Is the golden ratio a rule, or merely an intellectual construct?
- What do we mean by positivistic interpretation?
- Does this study expand our meaningful understanding of Chopin’s etudes?
- Are the results of this research – as they have been defined – at all falsifiable (in Popper’s sense)?
- Has the location of the golden ratio, at any point in the process, been deliberately miscalculated?

This study clearly shows the influence of positive science and of the positivist epoch. Gustav Theodor Fechner found in Adolf Zeising’s idea of the aesthetic significance of the golden ratio a basic aesthetic relationship (which could also be applied to musical harmony), which could provide a stimulus for experimental approaches to aesthetic analysis, based on elementary relationships within well-constructed forms. But we find in Fechner’s follow-on work a separation between the psychological analysis of aesthetic reactions on the one hand and the analysis of artistic-creative activity on the other.<sup>11</sup> And with Sabaneev the positive foundation of such laws is shown to be derived from this second branch of the discipline. They no longer belong to the subjective and psychological but to an objective and non-psychological aesthetic.<sup>12</sup> To be even more precise: to a mathematical poetics.

This poetics raises a particular problem with regard to its normativity. Sabaneev allows for such normativity when it is realised in an unconscious way. And this is precisely the case with the proportionality of perception. Such normativity remains an organic property of all artistic creativity, and it is therefore associated with the rhythmic organisation of the work. The proposed method is clearly rigorous, but we should also bear in

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Leonid L. Sabaneev (b. Moscow, 1881; d. Antibes, 1968), a Russian composer, musicologist and critic. In 1926 he emigrated from Russia, and the second part of his study on Chopin was published ‘in the author’s absence’ by Maria I. Medvedeva and Emily K. Rozenov. After his emigration, Sabaneev lived in France, Great Britain and the US. For more on his life and the character of his works and writings, see Sitsky, ‘Would-be Scientist’.

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It was preceded by the work of Emily K. Rozenov, ‘O primenenii zakona “zolotogo deleniia” k muzyke, Esteticheskie issledovanie’ [On the application of the law of the ‘golden ratio’ in music: an aesthetic study], *Izvestiia SPb. Obshchestva muzykal’nykh sobranii* (June–August 1904), 1–19; ‘Proiavlenie zakona zolotogo secheniia v muzyke i poezii’ [The occurrence of the golden ratio in music and poetry] (manuscript from 1920, cited by Sabaneev); ‘Primenenie zakona zolotogo secheniia v poezii i v muzyke’ [The application of the law of the golden ratio in poetry and music], *Sbornik rabot fiziologo-psikhologicheskoi sektiis GIMNa*, 1 (1925).

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Ernst Meumann, *Einführung in die Ästhetik der Gegenwart*, 3rd edn (Leipzig, 1919), 24.

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12

Ibidem, 35.

mind that such exactitude is not specific to mathematical poetics. It is also a requirement of other methods too.

The proportionality of the work is a measure of the highest order of importance, a necessary condition for the work's beauty. This assumption conforms to the philosophy of Plato. We find also in Baudelaire (in 'Invitation au Voyage'): 'La, tout n'est qu'un ordre et beauté, luxe, calme et volupté'. And Albert Thibaudet characterised a bizarre paradox of beauty in his *Physiologie der Kritik* by stating: 'The beautiful induces imprecise states, but is achieved through precise means'.<sup>13</sup>

Modern theories about proportion developed relatively late in music theory. In more recent theories of musical form, it first appears as a concept of symmetry, and only later is it understood as 'proportion', and even then in the most general sense. The work of Hans Mersmann is of fundamental importance to this topic. In his *Angewandten Musikästhetik*, from 1926 (contemporaneous with the study by Sabaneev), he recognises the transformation of the principle of symmetrical progression into a principle of proportion. From several types of structuring, it now becomes a specific type (along with symmetrically bounded, asymmetric and symmetrically free). It must be emphasised that these are principles, rather than structural rules. In Mersmann, we find 'symmetry', but the 'golden ratio' does not appear.

Now I come to the golden ratio and the heart of the problem. The golden ratio can be expressed through several mathematical formulas, i.e.  $\pi$ : 0.618 (precise to 0.001) or  $0.382 : 0.618 = 0.618 : 1$ .

The golden ratio relates to four forms of proportion.<sup>14</sup> It is also associated with symmetry, mean arithmetic division and the Fibonacci series (in which the relations between consecutive terms tend towards  $\pi$ ). For Chopin's etudes, symmetry must always be taken into account – in addition to the golden ratio. Some recent studies, e.g. those of Ernő Lendvai, devoted to the works of Bartók, and those of Roy Howat, which refer to the music of Debussy, provide much stimulation for this approach.

Sabaneev's studies of the golden ratio were very broad. The following statements are worth considering.

The research material for the entire study is provided by the 27 etudes. This genre is particularly suited to the study of the golden ratio, as Chopin's etudes have long been perceived as compositions with remarkably well-defined internal proportions (*stroinost*). One could also say that the very high degree of homogeneity in their structure makes it easier to define the golden ratio in these works.

Of the 27 etudes, the research revealed that 24 of them, or 89%, included at least one golden ratio (178 such ratios were identified in the melodies alone). The deviation permitted from the theoretical calculation was only 0.02.

But Sabaneev researched further: of 100 works by Chopin – according to Sabaneev – about 92, i.e. 92%, have at least one golden ratio (with a total of 410 such ratios).

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Cited after Salomon Marcus, *Mathematische Poetik* (Bucharest, 1973), 35.

In total, the author researched around 2,000 works in his study on the golden ratio, dating from the eighteenth, nineteenth and twentieth centuries. Compositions by Haydn and Beethoven had the highest percentage (97%), followed by those of Tartini and Arensky (95%) and then Schubert, Mozart and Chopin (91%).

Clearly, we are dealing with very high numbers here. They would seem to validate the underlying thesis of Sabanev's study. Almost all of Chopin's etudes have one or more golden ratio. What is the significance of this fact?

First, we must recognise that the golden ratio can work on several levels. The whole piece can be divided into larger and smaller parts (with a so-called positive or negative sequence, i.e. with the larger part followed by the smaller part, or vice versa).

Each of these parts can also conform to either a positive or a negative golden ratio (the second level), and so on. If we also consider that, as well as these asymmetrical divisions (which are very common), there are also symmetrical divisions, and that these can appear on every level, we can understand the enormous power of the proportional principle.

Consequently, Sabanev's thesis is that the golden ratio is a norm, a law. It is normative in the sense that it is a general rhythmic principle, a general law of rhythmic balance. The golden ratio is unconscious. (According to the author, the normativity of a phenomenon is confirmed by its frequency. Therefore, when considering a group of compositions, we must determine the frequency of the phenomenon.)

This raises a question. Why is the golden ratio so important? The answer is: because in the subdivision of a distance, it gives the maximum number of different divisions, while guaranteeing the minimum number of proportional relations.

For example, if the subdivision gives three sections, then there exist six relations among them, but the presence of the golden ratio reduces them to four, with an 'economising coefficient' of 150%;

- with six sections there are 30 relations, which are reduced to seven, giving a coefficient of 287%;
- with 45 sections, there are 1,400 relations, reduced to 13, with a coefficient of 1,138%, etc.

The power of this principle is evident here. And the greater the number of musical subsections, the more clearly the pattern is perceived.

How does the tectonic structure of the musical form or of the music's progression coincide, or conflict, with the golden ratio?

When discussing the articulation of tectonics, we must first identify the relevant points in a musical form. These aesthetically relevant points (the so-called peak points) are as follows:

- the boundaries of the formal structure
- repeats of comparable material



- the boundaries within the structure (i.e. the beginnings and ends of phrases)
- the dynamic culmination points (the culmination points of each articulation)
- the dramatic highpoint and the point of greatest relaxation
- each new key area, and also the start of each modulation.

Sabaneev goes into great detail about the methodology of his research, but the issues he raises can only be touched on here.

The main problems relate to the temporality of music. In its earlier history, the theory of the golden ratio was developed on the basis of the visual arts. Fechner and Zeising began applying the golden ratio to music, and Sabaneev, a few decades later, seems to have made the first major musicological study in this field (only partially anticipated by Rozenov).

But what is measured, and how is it measured? These are fundamental questions, and the conclusions of such a study, as well as the value of the theory itself, undoubtedly depend on the answer.

The temporal spans are not counted in bars, but in counting units (metrical units). So, for example, a bar in common time would have four units. Fermatas and final rests are also counted. Curiously, any initial silence (which occurs before the beginning of the actual notated music) is also anticipated if necessary. In the so-called peaks, four different kinds of events come into play (they are of fundamental importance for the golden ratio):

- the dynamic centre
- the intonational centre
- the significance of the event to the tonality
- the formal/structural boundaries.

So far, we have only spoken of metric time. But temporal processes in music have another characteristic: the tempo can change, and this of course influences the proportions within the work. Sections are shortened or lengthened, and this is not done in chronometric time (i.e. against the clock) or in metric time, but in an 'ideal time'. This is because the composer places each of these peaks according to the ideal time of the composition. The result is that the peaks are often delayed.

The concept of 'ideal time' is very striking. We can talk in hypothetical terms about the influence of Russian phenomenology during this period (i.e. the kinship with Alexei Losev and his doctrine of Eidos<sup>15</sup>). This leads to further questions. We know, for example, of Igor Stravinsky's concept of ontological time and psychological time. This originated from Pierre Souvtchinsky,<sup>16</sup> who was still active in Russia in the early 1920s before he left for France. This hypothesis therefore relates to Russian phenomenological thinking during the 1920s with regard to musical time. It allows us to better understand the ideas of Souvtchinsky and Stravinsky.

Of course, we must distinguish between the quantitative methods for measuring the golden ratio and the qualitative assessment

14  
Mikhail Marutaev 'Priblizitel'naia zimmerriia v muzyke' [Approximate symmetry in music], *Problemy muzykal'noi nauki*, 4 (1979), 306–343.

15  
See Michał Bristiger, 'La questione principale della filosofia della musica secondo Aleksej F. Losev (1898–1988)' in Michał Bristiger, Nadia Capogreco and Giorgio Reda (eds), *Il pensiero musicale degli anni venti e trenta. Atti del Convegno, Arcavacata di Rende 1–4 aprile 1993* (Università degli Studi della Calabria, Centro Editoriale e Librario 1996), 259–272. The bibliography given there should be supplemented with Losev's *Bytie, imiia, kosmos* [Being, name, cosmos] (Moscow, 1993).

16  
Pierre Souvtchinsky, 'La notion du temps et la musique', *La Revue Musicale*, 191 (1939), 70–80.

of individual moments within real musical processes (with their dynamics, agogics, expression, etc.), which require qualitative methods. We have already seen how Sabaneev takes this qualitative assessment into account. But if the question of the golden ratio in Chopin seems too abstract, recall this statement from Susanne K. Langer: ‘art is essentially qualitative and at the same time abstract’.<sup>17</sup>

The whole issue of proportionality within a work leads us to broader considerations. That is why Sabaneev’s theory is so interesting; it is far more than a mere counting exercise. The well-proportioned nature of the work is considered in this theory to be the basis of its beauty. The thesis applies to Chopin, and particularly to his etudes. The golden ratio is the most powerful guarantee of this proportioning (*stroinost’*), so Sabaneev says. We have returned to Baudelaire.

#### IV

At this point, I would like to touch on the question of the reception of Chopin’s music and consider some comparisons between our two theories.

All doctrines concerning art from a former time in any given period together make up a phase in the reception history of that art. How do we classify such doctrines of a given period? A synchronistic approach can bring them together within the same time period, while a diachronic approach can show each to be a phase, as one doctrine follows on from another. Doctrines endure, adapt and change, and are subject to diverse influences. They also die out, and new theories arise, which in their turn influence the older but more enduring modes of thought. If different theories operate in a particular period, they run in parallel, converge or diverge. This gives rise to the possibility that, for a certain period – in this case the 1920s – a topographical representation can be created of the musical theories then current. This is also possible with the two theories on Chopin’s music discussed above.

For this task, I have used the model of ‘temporal structures’ developed by Charles Morazé, so that we can investigate these historical processes more deeply.<sup>18</sup> Of the two theories, one is rooted in personal psychology (I am thinking here of Eduard Spranger and others), while the other is based on the psychological positivist aesthetics of Gustav Fechner. It is clear that these theories – each with a distinct focus of study – stand at a very great distance from one another. The first theory considers the sensual, qualitative and subjective side, while the second is devoted to the formal, largely quantitative, objective side of musical structure.

But with the hermeneutic analysis provided by Bourguès and Denéréáz, the next psychological phase is already announced. And with the mathematical, but at the same time qualitative, poetics

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17  
Susanne K. Langer, ‘Abstraction in Science and Abstraction in Art’, *Problems of Art. Ten Philosophical Lectures* (New York: Scribner, 1957), 180.

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18  
Charles Morazé, ‘Structures temporelles’, in *Sens et usages du terme structure dans les sciences humaines et sociales*, ed. Roger Bastide (Gravenhage: Mouton, 1962), 120–123.

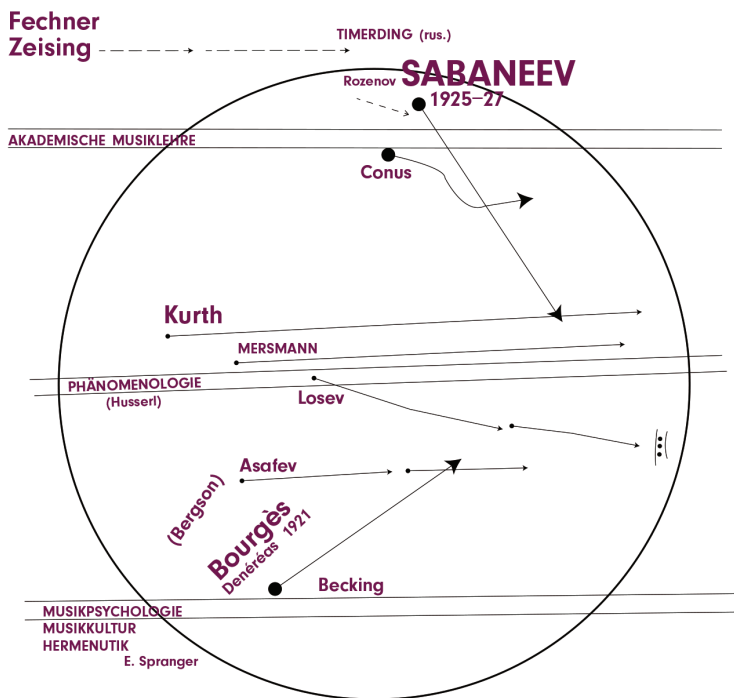


## Appendix 2

Table 2. Chopin: Etude, Op. 10 No. 1 in C major, after Sabaneev, ‘Shopena’, Part II (1927), 43.

Number of metric units	318 [Fermata = + 2]
Type of division	BA [corresponds to ‘C’]
Theoretical number	0.618
Actual size	0.609
Difference	3.524
Type of aesthetic event (dynamic, ‘intonational’, tonal or formal-structural event)	formal-structural

## Appendix 3





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**ABSTRACT**

This article explores two different perspectives on Chopin's music from the 1920s – those of Lucien Bourguès and Alexandre Denéréaz, on one hand, and Leonid Sabanev, on the other. The former approach displays a psychological character, so it is descriptive and focusses on such aspects as the expression and symbolic content of a work, while the latter studies the work primarily as a system of proportions, thereby constituting a form of mathematical poetics. Ostensibly confrontational, these scholarly standpoints actually represent elements in a bigger, all-embracing system of phenomenological thought which characterised that period in cultural history.

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**KEYWORDS**

Chopin, phenomenology, music psychology, structural analysis of music, Lucien Bourguès, Alexandre Denéréaz, Leonid Sabanev, golden ratio, Ernst Kurth

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