Mirjana Veselinović-Hofman*
University of Arts in Belgrade
Faculty of Music – Department of Musicology

MUSICAL NOTATION:
The More or the Less Than Sound**

Abstract: In this paper I will focus on the issue of the relationship between notation and sound, in terms of the question whether and in which cases notation includes or might include the more or the less of what can be heard during an interpretation of a score. The examination will be based upon the ontological implications arising from the difference between two main tendencies in the development of musical notation. The first of these tendencies points to a centuries-long course of increasing precision in score-writing, including the range of comprehensive information, such as extensive legends, extra-musical descriptions, detailed instructions for performers, etc. The other tendency, which has come into being from the second half of the twentieth century, is directed towards a decreasing exactness in score-shaping, which resulted in an indeterminacy implied by graphical notation, ‘notes of action’ or verbal scores. In contrast with the previously underlined tendency, which is based on object-sign relations, this one relies on the mechanism of associations. Consequently, the first tendency indirectly unravels its ‘trust’ in meticulous notation as the ontological ‘place’ of a piece of music; the second shifts this ontology towards the sounding itself, that is, towards the phenomenal level.

Key words: score, graphical notation, music graphic, notes of action, verbal scores, indeterminacy, C. Debussy, G. Ligeti, S. Hofman, Z. Erić, V. Tošić.

* Author contact information: mvesel@eunet.rs
** The research for this study was carried out as part of the project The World Chronotopoi of Serbian Music (No. 147045), supported by the Ministry of Science and Technological Development of the Republic of Serbia.
In this paper I will focus on the issue of the relationship between notation and sound, whether and in which cases notation includes or might include the more or the less of what can be heard during an interpretation of a score.

An assumption that notation includes the more than can be heard implies that the sound which is produced displays the less than is notated with the score. On the one hand, this means that the score includes something that refers to elements which cannot be heard during a performance and, on the other hand, something that cannot be performed/heard directly. In both cases we can speak of a kind of notational ‘surplus’ in relation to the performed sound.

I

The first case occurs whenever a score reveals a compositional intention aimed at gaining non-distinctive sound layers, or, for example, when an orchestral layer is deliberately ‘masked’ by some other louder layer. Such situations stem from specific compositional procedures and hence from the style of orchestration, more precisely of the treatment of the ensemble used. Therefore, at issue here are all kinds of notation that can accurately record highly complex musical structures. Such structures refer to those layers of a composition which appear to be not as discernible in their sounding as they are in their notated form. This is brought about by meticulous individual development and simultaneity of the layers, which means that the layers are ‘independent’ and yet partake in building the same fragment of the musical time of a composition. Thereby they can be rather numerous.

A second case of notational ‘surplus’ occurs whenever a score itself involves a particular visual shape: for example, the whole score may be shaped as a picture of a particular object, although notated traditionally, or can contain fragments of specific visual shapes.

A kind of notational ‘surplus’ can also be built into a score when it concerns the complexity of musical structures based on compositional procedures directly determined by extra-musical laws (e.g. mathematical, acoustical, etc.) which a composer uses in his work. It is, then, those laws implicit in the score that give form to a musical unfolding painstakingly notated by the score.

However, neither of those cases implied by notation can be identified with exactness through the listening.

II

Conversely, the assumption that the notation of a composition includes the less of what can be heard during its sounding means that a performance of the composition contains elements that are not precisely notated by its score. These can either be elements that cannot be notated or elements that are deliberately not notated.
The first case, which concerns the impossibility of the ‘absolute’ accuracy of notation, arises actually from the very nature of sound according to which some of its specific qualities remain necessarily elusive, that is, difficult or impossible to be fixed by notation.

The second case refers to examples of approximate notation, that is, notation which avoids precision in regard to all the components of a notated piece. Rather, it implies the intervention of personal performers, which results in a sound that ‘exceeds’ the notation.

***

I

As emphasized above, notational ‘surplus’ is directly dependent on compositional procedures, already apparent, to a certain extent, in the history of European part-writing, which was directed to ever more complex techniques, textures and forms. The technical devices of the Netherland contrapuntists are a case in point. Their treatment of imitation – in which the same melody is given out by each part in succession while the other parts relate to this flow contrapuntally in varied forms – attains a level of intricate technique and dizzying virtuosity. Based on the individual ‘independence’ of respective parts and extreme contrapuntal complexity of their relationships, the technique produces sound that is not so transparent, wherein each particular part is not fully discernible. In other words, the sound outcome ‘conceals’ rather than reveals in detail the internal contrapuntal enigmas of a given piece.

But we should not forget that the importance of a theme (melody) was far from irrelevant for the Netherland contrapuntists. The intention of their technical virtuosity was not to blur their melodies, but to materialize and emphasize them through the complex yet distinctive treatment of the parts. Moreover, the Netherland authors did not neglect the power of expression either, notably after the art for art’s sake phase in the development of their style. So, for the well-trained ear, it is not impossible to follow the musical unfolding of the compositional devices in the process of their sounding, but it is almost impossible for the listener who has little experience of listening to such music.

And exactly at this point, whereat the fact that clarity of the sound relief of a composition might remain unattainable for a listener, light is shed on the listener’s individual capability of perception, experience in listening to (certain) music and knowledge of it, as an additional issue referring to the relationship between the notated and the heard. Because, from this phenomenological aspect, we could claim that a score of any musical piece relying on any technique and any style would contain the more than can be heard by the majority of listeners. This majority listens to a piece of music according to only some of its components, usually those that are conspicuous and communicative. Also, what can be heard during
a performance depends on the listener’s completely individual mechanism of listening to a composition, mechanism based on his free choice of and focus on fragments and details of the composition during his perception of it.\(^1\)

Although these phenomenological aspects considerably affect the relationship between a score and its sounding, here primarily at issue is the problem of deliberate notational ‘surplus’ originating from the composer’s intentional poetical plan to achieve a blurred sound picture based on an extremely precise notation.

Such a picture is produced within those poetics that rely on the dramaturgy of colour: foremost is the poetics of Debussy, but also of all other composers who deal with the same problem circle through various technical procedures.

So, in the impressionistic oeuvre of Debussy, this dramaturgy is based on the principle of blended tone-colours as a result of the specific, subtle treatment of orchestral groups and individual parts within them. Generally speaking, the principles of such treatment comprise the following: divided parts of the string group; unique tone qualities of the instruments of the woodwind group acting either in their individual melodic role or in simultaneous distribution of their melodic and harmonic functions, or simultaneous mutual exchange of those functions; long sustained sounds of brass instruments and their sporadic individual ‘brightness’; emphasized subtlety of the sound of the harp, xylophone, celesta and the percussion group. These are all based on a specific harmonic style, variety of textures, diverse instrumental articulation, and unconventional use of instruments both in their separate appearances and in their multifarious combinations. The result is a kind of musical uttering characterized by thinly veiled rather than clear-cut sound outlines, even though notated in detail.

A fragment from the first movement of Debussy’s *The Sea, three symphonic sketches for orchestra* (1905) will exemplify this principle. The orchestral situation of the segment analysed here begins three bars before number 8\(^2\), with repetition of the material exposed for the first time at number 3. The segment I am commenting on refers to the number 8, where four horns doubled with two bassoons end their theme. Together with the last quaver of the theme, three muted trumpets marked with *soutenu et en dehors* (sustained and outside) begin exhibiting their four-bar motif while other instruments articulate the harmonic content (ninth chord /E – G sharp – B – D – F sharp/ of the added /major/ sixth /C sharp/) through several simultaneous layers of motifs in polymetric relations.\(^3\) The first layer is built by the woodwinds (two oboes and two clarinets alternating with two flutes, two

---


3 This way of articulating harmonic contents through several ‘vibrating’ orchestral strata is characteristic of the style of many other composers, not only Debussy. N. Rimsky Korsakov, O. Respighi, or I. Stravinsky are cases in point.
oboes, English horn and two clarinets); the second layer by horns (I, III); the third by harps (I, II) and divided violoncellos (in pizzicato); the fourth by divided parts of the first and second violins, including violas; the fifth by the double basses (in pizzicato). Each of the layers reiterates its own motif and each motif encompasses half of the six-eight measure (in tempo Modéré, e=116) except the horns and double basses, whose motifs spread over the whole bar. The general dynamic level of this musical segment constitutes the rule (piano), with nuances expanding to mezzo forte and back to piano. Built through all these means, the simultaneity of individually quite developed and accurately notated layers is intended to produce an indistinct, blurred sound picture.4

Other compositional-technical sources, not only impressionistic, can give rise to the same problem of the relationship between the quantity of the notated and the heard arising from the notated.

One of the most characteristic examples of this is Ligeti’s composition for large orchestra, Atmosphères (1961). I would claim that it demonstrates a contrast between the non-aleatory means of its structuring and notation and their aleatory sound effect.5

This composition is based on a specific organization of music time which, in principle, relies on the rather long duration of a cluster structure considered as a colouristic unit. This means that such duration encompasses movements within the cluster which concern the subtle changing of its colour. This is achieved by a mutual ‘exchange’ of pitches within the cluster and their positions in the registers of the instruments. A cluster tissue produced in this way is ‘supple’ in changes of its density, of its inner colour nuances and dynamics. I would even say that the dynamics of the composition act sometimes as a ‘substitute’ for its rhythmiical configuration.6 In other words, occasionally, rhythm and dynamics mutually exchange their functions. This occurs in the segments of the musical flow of the composition, in which rhythmical movements within a longer sustained cluster group of tones are made up for indirectly by means of dynamics changes, and vice versa. Rhythmical content of individual instrumental parts are sometimes detailed to such an extent that the effect produced is of a dynamic rather than distinctively rhythmical nature.

The latter is exactly the point at which we are faced with richer content and higher precision of the notation than of its sound effect. Actually, here we encounter content whose abundance of particulars and ramifications of their distribution over the parts are not intended to be noticed in their single-sound particularities.

4 Such a picture is in accordance with the extra-musical side of the work. The above-described situation occurs in its first movement. It is entitled From Dawn to Noon on the Sea, suggesting an impression of the smoothly moving sea-surface.


6 Cf. ibid.
Example 1
Claude Debussy: From Dawn to Noon on the Sea
Let me give an example from the beginning of the second part of *Atmosphères*. In the course of seven bars, starting from bar 23 [rehearsal mark C],\(^7\) 14 first violins, 14 second violins, 10 violas, and eight violoncellos display a ‘vibration’ of a 12-tone cluster doubled through several octaves. The cluster is distributed in such a way that pairs of instruments with rhythmically uniform material exchange the cluster tones, each pair exposing its own motif of two different tones.

After its chordal exposition (b. 23, C), the cluster is horizontally articulated through the instrumental parts. Successively and in principle by desks, the violins, violas and violoncellos expose their own motifs predominantly based on the repetition of the third.\(^8\) The initial tone of each of these thirds, meaning, of the third of each instrument, is the tone of the cluster chord, which was previously exposed in the chord exactly by that instrument. So, starting from different cluster tones, each instrument reiterates a motif built up in ‘its’ third. The gradual division of the crotchets into three to twenty features the rhythmical configuration of these motifs, only that the division into twenty occurs in those instruments which were among the first in their successive appearance.

Also, this orchestral situation includes an analogous action of the flutes and clarinets which join the imitative succession of the strings at the moment when the last group of strings enters with its material while the double basses, coupled with the 9th and 10th desks of the violoncellos, start holding a cluster chord. The woodwinds begin with ‘their’ motifs basically built also in thirds,\(^9\) but in a sort of retrograde rhythmical picture: with motifs based on the division of the crotchets into 16 and ending with a quaver ‘cluster’. This ‘cluster’ consists of the tones belonging to the lower major tetrachord, but is part of the 12-tone ‘sum’ at the same time.

So, all instrumental parts participating in this orchestral constellation differ slightly in their individual tone and rhythmical structures.\(^10\) These are given out by proximate instrumental registers through articulation comprising the span from *sul tasto non vibrato* over *sul ponticello molto vibrato* to *tutto sul tasto*, including the lowest levels of dynamics ending with *morendo*, and all that is notated with the greatest attention to detail.

It is quite clear that such notation cannot provide a sound effect in which the notated micro-polyphonic ‘independence’ of the lines would be discernible, but suggests a kind of their sound ‘totality’. The final sound result, therefore, concerns an overall musical flow characterized by a change of the cluster density, and the subtle dynamics of its colouring.

---


\(^8\) An exception can be noticed in the 13th and 14th desks of the group of the first and the second violins, in the 6th, 8th, 9th and 10th desks of the violas, and in the 6th and 8th desks of the violoncellos. Their motifs rely on the interval of the second.

\(^9\) Except the 4th flute and the 4th clarinet, whose motifs consist of the second.

\(^10\) Their metrical structures coincide with changes of cluster, regardless of the notated metre.
Example 2
György Ligeti: *Atmosphères*
A notational ‘surplus’ can also occur when a score is visually shaped in the form of an object through detailed notation. Actually, the object acts as a kind of content of the score. This usually refers to voco-visual\textsuperscript{11} projects based on the close relationship of cause and effect among different media (sound, visual and verbal) during their simultaneous ‘representation’ of the content. On the one hand, this relationship results in tight media correspondence. On the other hand, exactly because of their differences, the media are not capable of a total mutual ‘appropriation’ of the content. For example, the picture of an object being the visual content of a score cannot be shaped as such by its sounding. The sounding of the score cannot produce any visual form, which is why the score contains the more than can be demonstrated by its sounding. The sound indistinctiveness of what is visually distinctive as an object necessarily includes the issue of the relationship between the visual and the sound media regarding the representation and the perception of the object. In other words, when a score – always being, in fact, a matter of a specific visual organization – is additionally attributed with a particular shape bearing a picture of a concrete object, a multimedia problem circle necessarily arises. From the viewpoint of that circle, the visual experience of the picture of an object is direct: we can recognize the object. The sound experience of the same picture is indirect: we do not recognize the object through the sound: the object is only associatively mediated.

For example, while listening to the sound appearance of the score Eagle of Srdan Hofman,\textsuperscript{12} which bears the shape of an eagle, we can ‘reach’ a picture of it only indirectly, through evoking it when having in mind the title of the work and experiencing the ‘open air’ of its musical flow. These suggest no limits, but the feeling of freedom and superiority of the eagle-kind.

Also at issue in this paper are compositional procedures that rely on the laws of some disciplines that exist outside music, e.g. mathematics, physics, acoustics, theory of chaos, etc. These laws as such can be uncovered in a composition only analytically. They are neither ‘visible’ as an object in which a score is shaped nor are they capable of being ‘heard’ as originally formulated. For example, the


\textsuperscript{12} It concerns the third movement of Hofman’s composition \textit{Imprints of Sound} (1982) for mixed choir. Eagle consists of 36 choral parts building a cluster structure. These parts are treated as soloists, grammatically strange but on the chordal basis of the pedal in the remaining voices of the choir and notated in extreme detail. However, the sounding of the score is perceived as the music unfolding of an aleatory nature. (For detailed analyses of this composition see: Mirjana Veselinović-Hofman, ‘Musicology vs. Musicology from the Perspective of Interdisciplinary Logic’, in: Nico Schüler (ed.), \textit{On Methods of Music Theory and (Ethno-)Musicology – From Interdisciplinary Research to Teaching}, Frankfurt am Main, etc., Peter Lang Verlag, 2005, 9–38; idem, „На стазама транзиције: од ока до уха нашег мишљења“ музици [„On the Paths of Transition From the Eye to the ‘Ear of Our Thinking’ Music“], Интернационални часопис за музику Нови Звук, 31, 1/2008, 61–76.
compositional-technical procedure applied by Boulez in his *Structures Ia* for two pianos (1952) is conceived in the field of music, but organized and developed outside it, through two numerical tables. These contain numerically notated transpositions of four basic forms of the twelve-note row of the composition. Boulez uses fixed numbers to mark the notes of the row in the tables, which means that – in order of pitches based on the principle of permutation and set up by the tables – every pitch of the row always keeps exactly the number that ‘belongs’ to its order of appearance in the basic row. All other musical parameters of the composition (duration, dynamics, articulation, etc.) are also serialized and submitted to the same logic of fixed numbers. To obtain its values in the unfolding of the composition, each parameter behaves according to the rules of the composer’s complex system of reading the tables.

Within this system, every single parameter is given its own direction of the reading. In this way, the entire musical flow is predetermined through non-musical means. Therefore, both the score and the sound appearance of the work act as forms of ‘equipment’ which are ‘activated’ according to the tables as a given ‘program’.

However, such procedural independence of the parameters and their purely mathematical sense and ‘behaviour’ in a composition cannot always provide a predictable result at every step of its musical flow. Sometimes, those values origi-
nating from a non-musical procedure appear to be musically incongruent. And it is up to the author of the composition to intervene in such situations by introducing necessary changes of and exceptions to his non-music procedure, which Boulez actually did in his Structures Ia, in order to make those values musically sensible.

So, any aspects of the content implied and ‘captured’ by the notation itself, which are caused by elements that naturally belong to the ‘competence’ of other, non-music media or non-music disciplines – be they a picture of an object as a visual shape of a score or a non-music law according to which a score/composition is structured – can neither be performed as such nor perceived as such in the very sound result. Because, then, behind its ‘orthography’, a score contains something else, something more of what can be directly experienced through the sounding of that ‘orthography’.

II

On the other hand, as I have already stressed, notation also points to the problem of containing the less of what is heard in its sounding. Firstly, it concerns the impossibility of accurate notation of musical elements that are elusive by their nature, and which actually cause differences among interpretations of a composition, that is, different qualities of its phenomenal forms of existence. Although notated in a score, these elements (e.g. dynamics, articulation, agogics) can never be interpreted twice in the same way, even by one and the same performer. Because, as we know, each of the general values of these elements – for example forte, legato, accelerando, ritardando and the like – includes slight interpretational differences within each of the values, enabling possibilities for gaining a myriad of nuances. And every single interpretation embodies a specific, that is, ‘its’ own quality of the nuances, due to which every interpretation is always unique. Thereby, the peculiarity of those nuances affecting an interpretation does not originate only from an individual performer’s style, but is also influenced by various factors existent beyond music – for example, the performer’s mood and his feelings during his performing, the acoustic conditions and atmosphere in the concert hall, etc. This means that many aspects of both the performer’s professional and psycho-physiological traits and experiences determine the phenomenal level of a composition. In other words, the strength of a performer’s forte dynamics, the intensity of his legato or, let us say, the swiftness of his accelerando, for example, are never totally the same.

So, regarding all those changeable elements of a composition, the richness of its sound outcomes necessarily exceeds its notational marks. It is as if these marks function as a kind of ‘blanket term’ for the gamut of those nuances potentially comprehended by the terms which affect and distinguish the phenomenal

appearances of a composition. From this aspect, the score is always the less than its sounding.

Forms of approximate notation open up the same issue. These forms are used either because a technological process applied in a composition is tremendously complex, resulting in sound content that is not possible to notate precisely and entirely by means of traditional notational marks, or because a composer does not even intend to fix the very structure of his piece, partly or totally.

So is in the sphere of electronic music a composition (or a layer of it) structured through compound technological processes referring to the ways of producing, modifying and combining sound materials, all of which is not possible to note down in its entirety either with traditional notational signs, verbal descriptions or schematic representations. These are used only to fix the characterizing pillars of a composition, hence functioning as its general pointers, or to indicate the type and steps of a musical unfolding in the electronic parts (in the case of a composition written for ensembles of both traditional instruments and electronic equipment). So, those forms of notation are not sufficiently informative as the basis for the performing of the composition in its totality.

For example, electronic parts in a piece by Zoran Erić, The Abnormal Beats of Dogon, for bass clarinet, piano, mouth harmonica, percussion and live electronics (1991), are notated in two ways (as are all other instrumental parts): with a fully written score (A-score), and a separate score containing exact patterns for improvisation (B-score). The fully written score only roughly suggests the content of the electronics, and the pattern score accurately exposes the corresponding musical materials.

I shall exemplify this with a fragment from the (quasi) third movement of the composition, Acceptance (with Wondering). In the first type of score, the part of the Sampler Keyboard (I) consists of indications for performing samples in real time and the kind of samples to be performed; a sustained black line, suggesting a pedal layer on indicated samples, notes the part of Sampler Keyboard (II); and the very content of the samples are to be read from the score with patterns.

14 The only form of complete notation of an electronic composition, which is at the same time its only and ‘ideal’ interpretation, is its sound recording (if it does not concern the field of live electronic). However, the phenomenon of sound recording as the kind of notation is not at issue in my current examination.

15 The piece is the second of Erić’s five compositions in the cycle Images of Chaos (1990–1997).

16 This reminds us of the categories of a ‘score for listening’ and a ‘score for realisation’. A ‘score for listening’ is approximate and often contains graphical, visual elements to generally indicate the music flow notated by it. (Cf. Erhard Karkoschka, ’Vorwort’, in: Reiner Wehinger, Ligeti: Artikulation. Elektronische Musik. Eine Hörpartitur, Mainz, B. Schott’s Söhne, 1970)
When a composer includes even higher degrees of improvisation – for example, deliberately leaving the structuring of his piece to performers, stimulating their own creativity in the process of improvisational shaping of the piece – he avoids fixing his work accurately. In this regard, a performer’s intervention can occur within the values of some of the musical parameters of a composition or even all of them. In the first case, which is typical of aleatory music, a performer is expected to improvise on one or several parameters of a composition (e.g. pitch, duration, dynamics, form, etc.) following instructions written in its score, or choose to perform one of the possibilities regarding the values of those parameters, generally predetermined by the composer himself.

For example, in his Third Piano Sonata (1957, unfinished), Boulez entrusts to a pianist interventions in the field of musical form only while strictly notating other (serialized) parameters of the composition. So, five movements of the Sonata may be performed in different order, under one composer’s requirement: the movement Constellation or, alternatively, its retrograde variant Constellation-Miroir, has to be played as the central part of the macro form of the Sonata. The choice of the order of playing elements of the microform of the piece is also the pianist’s, but, again, within the options prescribed by Boulez himself. And yet, within a rhythmically defined unfolding, a pianist is allowed the freedom to play ornaments in the sense of ad libitum, as well as to vary the values of tempo within the limits fixed by the author.

In the case of indeterminacy, a performer is free to improvise on all musical parameters according to the specific composer’s suggestions notated in various
ways, for example, in the form of ‘action’ notation, verbal or graphic scores, or music graphics.\textsuperscript{17} It is then about the conception of the open work.\textsuperscript{18}

In these situations, a score bears only a general direction for a performer to freely express his full creativity in building the uniqueness of his own musical structuring of a piece. Hence, a sound result achieved in this way is never readable from the score and is, in principle, intended to contain more musical elements, content and nuances than that notated by ‘action’, verbal, graphic scores or music graphics.\textsuperscript{19}

Of course, the quality of the sound appearance of a composition conceived in the form of an open work is necessarily determined by the level of a performer’s creativity, (musical) knowledge and interpretational skills, demonstrating his individual style of playing/singing.

However, such scores, being approximate from the purely musical viewpoint, or even completely insufficient as marks for regulating the very musical structure of a piece notated by those scores, might bear artistic qualities in themselves on the basis of their verbal contents or their visual side. For example, a verbal score

\textsuperscript{17} A graphic score is not entirely the same as a music graphic, although they are often treated as equivalent. A graphic score is foremost a kind of notation, a score, which means that it is predominantly based on signs. A music graphic relies primarily on drawings, on the components of the visual, and it is the mechanism of associations through which these components are ‘transferred’ into their sounding.

\textsuperscript{18} Cf. Umberto Eco, Das offene Kunstwerk, Frankfurt am Main, Suhrkamp, 1996.

may not only consist of more or less professionally emphasized instructions for and descriptions of a performing procedure which should be followed, but also of texts which suggest a sound interpretation indirectly inspiring it through their own literary, poetical or philosophical contents. Due to these contents, the texts can gain their own integrity, becoming independent of their possible and expected music ‘fulfillment’. By the same token, due to its visual traits, a graphic score might reach the level of an artistic achievement, which is not of the sound nature and which produces its phenomenal sense also apart from its sound realization.

So is the music graphic *Duration 1, for string orchestra* (1976) by Vladimir Tošić both a visual piece of work and a score suggesting a free music shaping. As a visual outcome, the graphic can be exhibited in a gallery independently of its interpretation in a sound form. As a score, the graphic suggests a general direction of the performing, through the multiplicity of symmetrical relations of its structural elements and their overall formal ‘design’.

Example 5
Vladimir Tošić: *Duration 1. For string orchestra*

Here we encounter the kinds of notation which are not ‘in control’ of musical structuring of a composition, but rather in control of verbal and/or visual aspects of its organization. Also ‘encroaching’ on the field of the verbal and visual media and the arts, ‘action’, verbal, graphic scores and music graphics demonstrate a sort of ‘border’ case of the aspect I am dealing with here, since they show the more and the less than sound equally, at the same time: the more, since those scores actually represent/signify/mean/point to... something other than sound, something which can aesthetically, even artistically, stand apart from their function in the pure ‘preservation’ of potential musical substances; the less, because of their essential lack of structural focus on the substance.

However, we should not forget that the relationships between notation and its sounding always concerns a relationship between ‘something else’ (that is, notational signs which ultimately belong to the sphere of the visual) and sound (that is, something which is from a media viewpoint necessarily different from what stands ‘behind’ it, in ‘its’ score). And that is implied by the fact that it always concerns a relationship between two different media ‘responsible’ for the existence of a composition: between the visual and the musical, the visual acting as a precondition for the musical.
Within the traditional European system of notation this relationship relies on object–sign relations. Over centuries these relations have become more precise, coupled with a range of comprehensive information (for example, extensive legends, extra-musical descriptions, detailed instructions for performers, etc.), aimed at providing as accurate an ontological ‘place’ as possible for a composition in the field of traditional notation. Therefore, in principle, object–sign relations reveal that a traditional score should never be the less than the sound it conserves, except regarding those sound qualities that go beyond these relations, naturally ‘sliding’ out of the object–sign system.\(^2\) In this way, this system actually ‘guarantees’ that a traditional score can only be the more than its sounding – again, excluding intangible sound features.

In contrast to this, those kinds of notation directed towards decreasing exactness in shaping a score – and which have resulted in ‘notes of action’, verbal, graphic scores or music graphics – have shifted the ontology of a piece of music to its phenomenal sphere. In this context, the object–sign system has lost its priority. Instead, it is the mechanism of associations which affects and determines connections between the visual of a score and the musical of its sound emergence.

Therefore, the question of whether musical notation is the more or the less than sound depends directly on the ontological ‘place’ of a composition. Whenever its ontology lies in the score, notation is, in principle, the more than sound, despite the explained exceptions. And whenever the ontology resides in the phenomenal sphere, notation is, in principle, the less than sound.

Мирјана Веселиновић-Хофман

МУЗИЧКА НОТАЦИЈА: ВИШЕ ИЛИ МАЊЕ ОД ЗВУКА

САЖЕТАК

У овој студији реч је о односу између нотације и звука, у смислу питања да ли и у којим случајевима музичка нотација укључује и, уопште, подразумева више или мање од онога што може да се чује за време звучне реализације записа једног музичког остварења.

Истраживање се темељи на онтолошким импликацијама проистеклим из различке између две главне тенденције у развоју музичке нотације. Једна од њих указује на доследно повећање прецизности и сваковрсне опремљености партитуре, укључи

\(^2\) Notation based on the binary system, which implies the sounding itself, would considerably broaden this issue and slightly modify the given inference. However, I am not dealing here with the kinds of notation that do not preserve music in a visible form, that is, in the form of a more or less legible suggestion for creating sound appearance of a composition. (Cf. Mirjana Veselinović-Hofman, ‘Notation as Music in Itself in Digital Technology’, International Magazine for Music New Sound, 11, 1998, 33–41).
чујући и информације типа обимних легенди, композиторових ванмузичких сугес-тија и описа, детаљних инструкција упућених извођачима, итд. Друга тенденција, по специфичним елементима уочљива првенствено почев од друге половине ХХ века, управљена је према смањењу прецизности и обухватности у обликовању партитуре, што је кључно повезано са индетерминизmom обухваћеним графиком и акционом нотацијом или вербалном партитуром. Насупрот претходно поменутој тенденцији базираниј на релацијама објект–знак, ова потоња почива на механизму асоцијација. Последично, прва тенденција индиректно открива ‘проверење’ у детаљну, прецизну нотацију као онтолошко ‘место’ музичке композиције; друга, пак, премешта њено онтолошко тежиште на само звучање, на њену феноменалну појавност. Та проблематика је показана из угла одговарајуће анализе оркестарских дела К. Дебисија (Море) и Ђ. Лигетија (Атмосфере), дела С. Хофмана Орао за мешовит хор, Булезових композиција Структуре Ia за два клавира и Трећа клавирска соната, дела З. Ерића Абнормални ударци Догона за бас кларинет, клавир, усну хармонику, удаљке и живу електронику, и музичке графике Владимира Тошића Трајање 1, за гудачки оркестар.

Кључне речи: партитура, графичка нотација, музичка графика, вербалне партиту-ре, недетерминисаност, К. Дебиси (C. Debussy), Ђ. Лигети (G. Ligeti), С. Хофман, З. Ерић, В. Тошић.