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On Form, Cyclicity and Temporality in Leoš Janáček's String Quartet No. 1

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Abstract

Objectives: The study aimed is to identify the underlying temporal structures, procedures and devices employed by Janáček in the composition of his First-String Quartet, by way of a thorough analysis of musical forms, relations and cyclicities of recurring themes and motifs, and an examination of referential semantic structures.

Methods: The study applied a descriptive-analytical method in the framework of a textual approach to the composition under consideration. This includes identifying procedures of contrast, juxtaposition, interpolation, temporal intercutting, and superimposition described by T. Clifton, often employed together with a montage-style technique.

Results: The results of the study of our analysis clearly show Janáčeck's preference for the palindrome arch form and rondo-like forms, combined with features of ternarity. In their recurrences themes are mostly varied, occasionally transposed, and often curtailed, sometimes to the duration of a mere referential reminder. This form entails a specific temporality related in the palindrome form to a retrograde temporal directionality. The superimposition of themes and accompaniment textures also entails a superimposition of their temporal strata. Another poignant feature of this quartet's temporality is the use of referential-semantic devices. This includes the multiplicity of inter-sectional and inter-movement citations of themes, motifs, and intonations.

Conclusions: In the light of the results, the study recommends further empirical experimental research of the perception of temporal categories outlined in this paper, and to explore the relation of semantic referential structures and elements of speech in the melodic of Janáček.

Keywords: Temporality, palindrome, ternarity, temporal intercut, superimposition.

حول القالب، الدورية والزمانية في الرباعي الوتري الأول لليوش ياناتشيك

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ملخّص

الأهداف: الكشف عن البنيات والعمليات والأدوات الزمانية المستخدمة من قبل ياناتشيك في تأليف الرباعي الوتري الأول، من خلال تحليل دقيق للقوالب الموسيقية وعلاقات ودوريات الألحان والموتيفات المتكررة، وفحص دلالات البنيات السيميائية .

المنهجية: جرى استخدام منهجية وصفية-تحليلية ضمن إطار نصي-موسيقي، تشمل تحديد ووصف عمليات التضاد، التجاور، الإدخال، القطع الزمني والتراكب، التي توظف في كثير من الأحيان بتقنية قريبة من المونتاج.

النتائج: أظهرت نتائج الدراسة بوضوح تفضيل ياناتشيك لقالب البوليندروم المدمج مع قوالب الأقواس والروندو وعناصر للقالب الثلاث؛ حيث تكون الألحان في تكراراتها غالبا منوعة، وأحيانا مصورة، وفي كثير من الأحيان مختصرة؛ حيث يصل الاختصار أحيانا إلى مجرد التلميح أو التذكير. ويستلزم هذا القالب زمانية خاصة للبوليندروم مرتبطة باتجاهية السير العكسي للزمانية. كما يستلزم تراكب الألحان ومرافقاتها تراكبا لزمانياتها. إن استخدام الأدوات الدلالية والسيميائية هو ملمح بارز آخر لزمانية هذا الرباعي؛ حيث تتضمن العديد من التكرارات والاقتباسات اللحنية داخل وبين الحركات. وتصل هذه الدلالية إلى أوجها في الحركة الرابعة والتي ترتكز على نحو أساسي على التكرار والاقتباس اللحني من الحركات السابقة. كما أن تفضيل ياناتشيك للأعداد الفردية من الحقول في الجملة الواحدة، ومن الجمل في الفقرة الواحدة هو من الملامح البارزة التي جرى الكشف عنها في هذا الرباعي الوتري.

التوصيات: في ضوء نتائج الدراسة أوصي بضرورة إجراء المزيد من البحوث في مجال الدراسة العملية التجريبية لاستيعاب البنيات الزمانية المكتشفة في البحث الحالي، وفي دراسة العلاقات والبنيات السيميائية والعناصر اللغوية في ألحان ياناتشيك.

الكلمات الدالة: الزمانية، البوليندروم، القالب الثلاثي، القطع الزمني، التراكب..

Introduction

According to the German composer Wolfgang Rihm, Leoš Janáček, whom he calls "the most marvelous of all forbidden composers" (Rihm & Mosch Vol. 2, 1997: 304), "speaks a language that is […] so physical that it *is* the shift and displacement of reality and the rage of injured love, and not only means it" (Rihm & Mosch Vol. 1, 1997: 121). The Czech composer Leoš Janáček (1954-1928) started his career as a composer in the 1870-s and most of the 1880-s under the influence of R. Wagner, B. Smetana and A. Dvořak. In1886 he started collecting and analyzing Moravian musical folklore, together with the scholar F. Bartoš. Under the influence of these interests Janáček's style shifts closer to a modernist neo-folklore paradigm. Moravian music, in contrast to Bohemian, is much freer and more irregular in its metrical and rhythmic structures, and more varied in its intervallic melodic organization. Janáček largely internalized these features which influenced his musical style considerably, especially in his later works of the 1920-s, as we shall see from the analysis of his Frist String Quartet below.

Theoretical Framework

The current research aims at unveiling the underlying temporal structures, procedures and devices employed by *Leoš Janáček* in the composition of his First String Quartet. This goal is achieved by a thorough textual analysis of musical forms, relations and cyclicities of recurring themes and motifs within a single movement and/or between different movements. In addition, a methodological examination of referential semantic structures that include not only thematic references, but also references related to character, tempo and affect between the movements is necessary. The purpose is to lay out a compositional-technical description of the working apparatus employed by Janáček in the formation of the quartet's overall structure and temporality, which would be of interest for composers and musicologists alike. This purpose explains the non-empirical, purely textual-analytical approach taken in the current paper. Such an initial textual approach could open the door for further research along the lines of: 1) empirical experimental research regarding the perception of temporal categories outlined in this paper, and 2) exploring the relation of sematic referential structures, on the one hand, and elements of speech in the melodic of Janáček that has been the subject of much research over the past decades on the other. The significance of this research follows from the interest presented by this specific composition, as well as from the insufficiency of similar analyses of the temporality of musical compositions, especially in works written before World War II.

The methodology applied in this research is the descriptive-analytical method combined with a phenomenological approach to temporality, based primarily on the work of Thomas Clifton. Special attention in paid to the various procedures musical materials and their temporalities are subjected to, with reference to Clifton's terminology, such as contrast, juxtaposition, interpolation, temporal intercutting and superimposition. Such a hybrid methodology is designed to tackle the paper's main problem, the relation between formal-structural and referential-semantic aspects of a composition's temporality.

In this regard, Nors F. Josephson's *Cyclical Structures in the Late Music of Leoš Janáček* (Josephson, 1995) explores cyclical procedures that involve the "recurrence (often varied) of musical themes or motives, harmonies or keys, and related coloristic, figural, or rhythmic patterns", which may "occur between sections, movements, or even acts of a larger composition and often feature a developmental, climactic treatment of earlier material" (Josephson, 1995: 402). Josephson distinguished four basic cyclical procedures that include *philosophical framework*, in which old age is viewed as a renewal of youth, *dramatic confrontation* often employed in the composer's operas, *symmetrical arch-like forms* that that include the palindrome form[1], and *recurring spirals* employed as transitional devices (Josephson, 1995: 404). The author, however, focuses mainly on larger scale thematic recurrences on the movement or act levels. He also puts more emphasis on cyclicity as a structural compositional device, without analyzing the temporal aspects of these structures.

Paul Wingfield's article Janáčeck's *Lost Kreutzer Sonata* (Wingfield, 1986), though treating exclusively the composer's first string quartet, is predominantly dedicated to its sematic correlation with N. Tolstoy's Novella and some of the writer's other works in the context of Janáčeck's pan-Slavic ideals and his close relation to Russia. The author considers Janáčeck's

[1] A palindrome is a word, verse, sentence or number that reads the same backward or forward. The palindrome form, also known as the *arch form*, follows the principle ABCBA, regardless of the number of section. Apart from Janáčeck it is often implied in works by Bela Bartok and Paul Hindemith.

commentary to his string quartet parallelly appealing to the Czech conductor and pedagogist Pavel Dědeček's (1885-1954) remarks on the composition. Special attention is paid to the quartet's origin in the 1922 Piano Trio. Thus, due to his concentration mainly on the sematic and literary aspects of Janáček's quartet, Wingfield is little concerned with formal and temporal structures and devices employed by the composer.

Of special significance for this paper's methodology is Thomas Clifton's book *Music as Heard. A Study in Applied Phenomenology* (Clifton, 1983). Clifton discusses various aspects of music within a Husserlian phenomenological context, including time, space, elements of play and the stratum of feeling. After a methodical review of Husserl's concept of time consciousness, time as a background of music and numerous conceptions and terminology related to temporality, Clifton systematically discusses the conceptions of *Beginning*, *Ending*, *Continuity*, *Contrast and Interruption*, *Temporal Intercuts* and *Time Strata*, some of which are essential for the analyses in the current article.

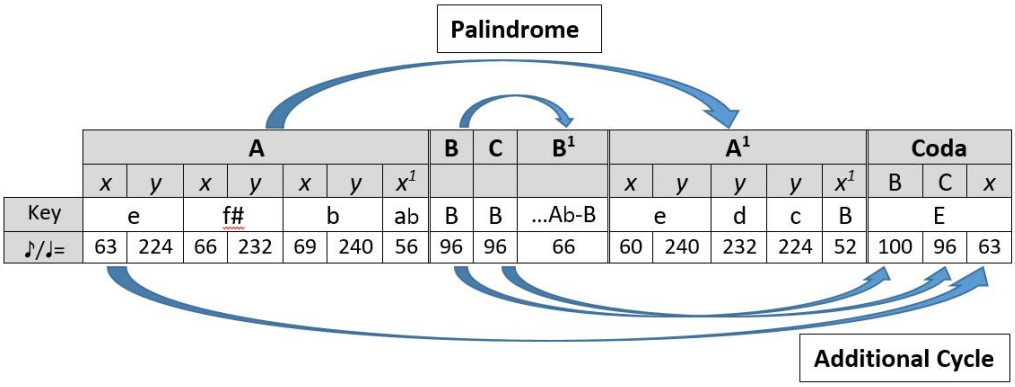
Another substantial methodological reference is F. Joseph Smith's book *The Experiencing of Musical Sound. Prelude to a Phenomenology of Music* (Smith, 1979), especially the fourth chapter. Here Smith explores the concept of an "intentional line of temporal experience as opposed to the chronometric line [… understood as] The immediate intuition of musical sound as an object of experience" (Smith, 1979: 103). Smith, however, remain predominantly on a philosophical-theoretical level of discussion without reference to musical examples and illustrations.

Analysis of Form and Temporality

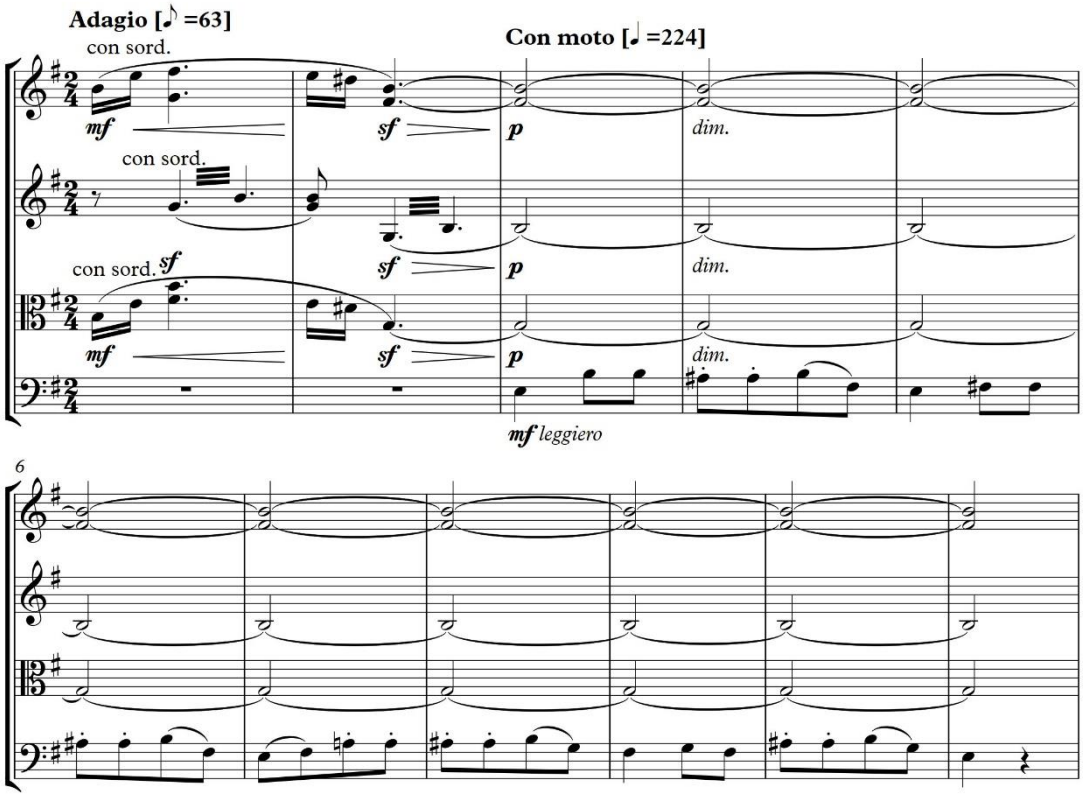
Janáček composed his First String Quartet *Kreutzer Sonata* in a period of heightened productivity during only two weeks between the 13th and the 28th of October 1923, then revised it in early November. The work was inspired by Lev Tolstoy's Novella *The Kreutzer Sonata*, the title of which refers to Beethoven's *Kreutzer Sonata* dedicated to the French violinist Rudolphe Kreutzer (1766-1831). In 1908-1909 Janáček composed a Piano Trio also inspired by the same Novella, a work that is now lost. But surviving fragments of the Trio suggest significant similarities between it and the First String Quartet. Tolstoy's novella definitely resonated with Janáček's own personal life circumstances, as he himself was caught in a difficult marriage and was infatuated with the considerably younger Kamila Stösslová, in her turn also married, and to whom he wrote hundreds of letter during the last eleven years of his life.

The quartet's **first movement** unfolds as a five-part palindrome arch form (A-B-C-B^1-A^1) with a compound coda and a composite contrasting first section (see table 1). Simultaneously it exhibits clearly discernible ternary features with the middle part encompassing the three internal sections (B-C-B^1) surrounded by sections A and A^1. Section A has a cyclicity of its own consisting of two thematically and temporally contrasting motifs *x* and *y*. These two motifs alternate thrice to form the overall first section A as *xy-xy-xy-*x^1. In contrast to A, the middle sections B, C and B^1 are thematically more homogeneous despite their temporal heterogeneity.

Table 1: The overall structure and cycles of the first movement



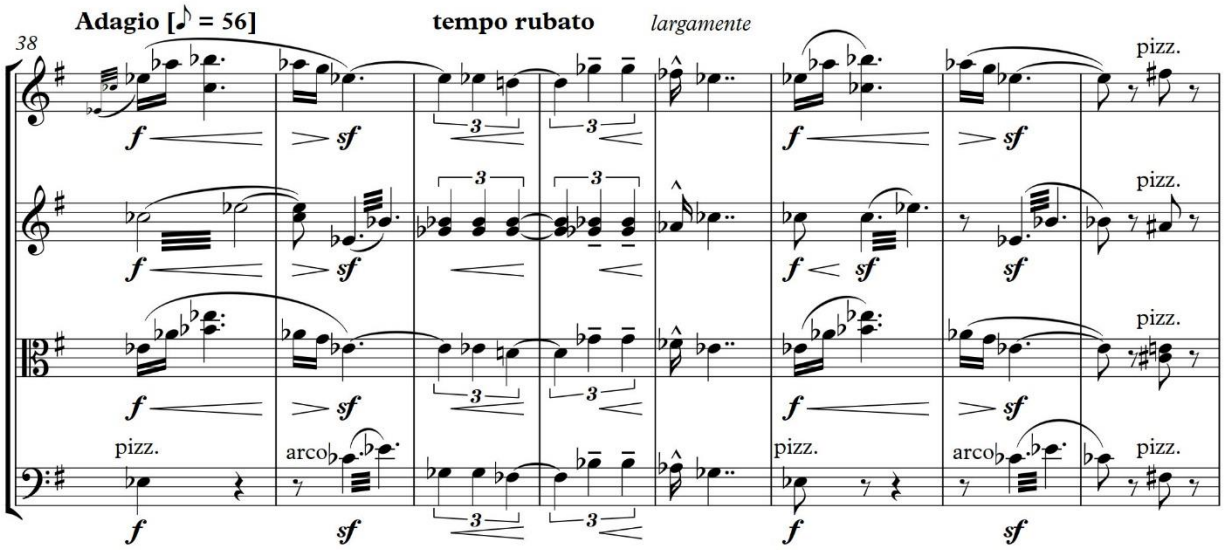
The movement opens with section A consisting of three statements of the *xy* motivic complex followed by a final more elaborate version of the *x* motif alone. The latter segment will henceforth be referred to as x^1. It introduces an additional motif *z* based on triplet quarter note chords and forms the section's closing segment. The overall temporal structure of this section is of high complexity as it is perceived as a superimposition of two temporal strata, each with its own evolving temporal structure. The germinal motif *x* is denoted the *erotic theme* by Nors S. Josephson (Josephson, 1995: 407), in reference to its relation to N. Tolstoy's "Kreutzer Sonata", the quartet's emblematic program. It is introduced in the home key of E minor by the three higher strings performing *con sordino*[2]. The opening quartal interval (B-E), in the tempo *Adagio* (♪= 63), consists of two sixteenth notes on the first measure's downbeat giving the motif an expressive sensual *trochaic* feeling[3], emphasized by the ***sf*** on the measure's second eighth note forming a syncopation between its two beats. After outlining the tonic quartal contour (B-E) motif *x* leads to a G major seventh chord stressing the minor 2nd/major 7th interval (F#/G), and including an internal major 3rd tremolo (G/B) in the part of the 2nd violin (Example 1). The seventh chord is sustained for the following nine measures forming the background for the entry of the second theme *y*. This sustentation of the major seventh chord allows for it to be *perceived* as a continuation of motif *x* and *its temporality*. Consequently, the entrance of motif *y* is *perceived* as a temporal intercut (Clifton, 1983: 110-124), i.e. the interruption of the temporality of one *eventing* by that of another (Example 2). In this case the interruption is rather perceived as a superimposition or *overlaying*. The new layer consists of a *leggiero* theme, close in spirit to a traditional dancing folk tune, in tempo *Con moto* (♩ = 224). In addition, motif *y* has a *cyclicity of its own*, consisting of four repetitions of the same motif with only a minimal degree of combinatorial variation (Example 1, mm. 3-11).



Example 1: 1st mvt. mm. 1-11

[2] *Con sordino*: muted, with the mute placed of the bridge.

[3] Trochee is a poetic metrical foot consisting of a stressed or heavy syllable followed by an unstressed or light one.



Example 2: 1st mvt. mm. 38-45

The bi-thematic complex is repeated twice in the keys of F# minor and B minor respectively with additional alterations made in the instrumentation. The most important *temporal* feature of this section, however, is the changes occurring in each of the two tempos in their consecutive soundings. The tempo of motif *x* changes from (♪= 63) to 66, then 69. Motif *y* experiences an acceleration as well as the tempo moves from (♩ = 224) to 232, then 240. Thus we perceive a gradual acceleration of each of the two temporal strata independently and parallelly, which strengthens the sense of their autonomy, as well as the effect of their mutual superimposition. Adding to the complexity of the music's temporality is the indicated *ritenuto* at the end of each occurrence of the *y* theme linking it to the ensuing tempo Adagio of the following *x* motif.

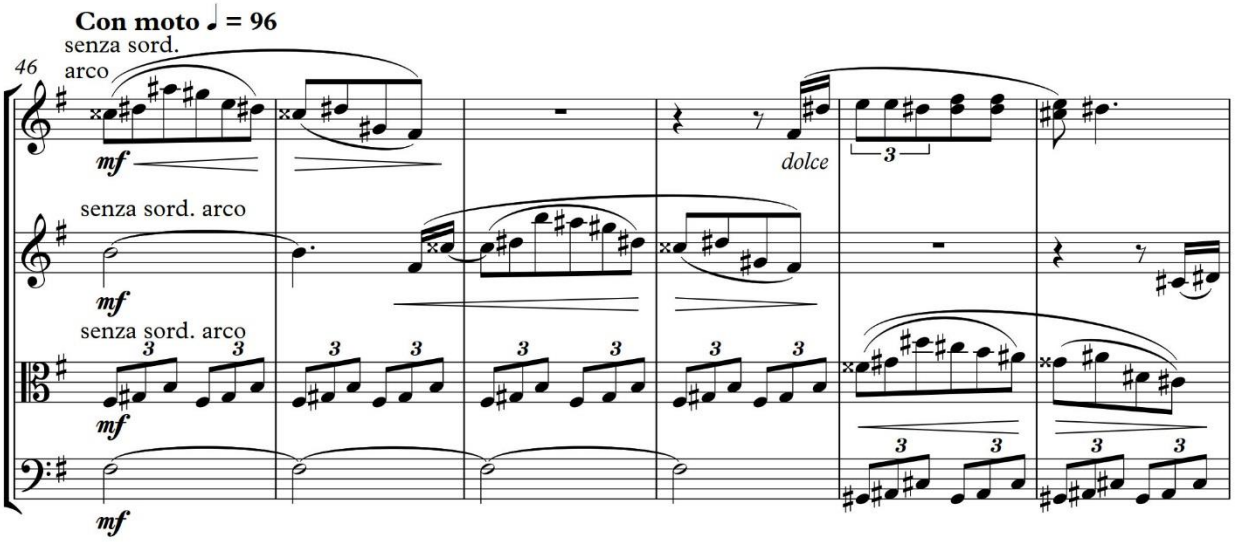
The subsequent closing segment x^1 (mm. 38-45) is significant with regard to temporality in several aspects. First, it presents a deceleration of tempo to a level discernibly beneath that of the opening tempo of the *x* motif to (♩ = 56), which, together with the added [tempo rubato] and the following [*largamente*], significantly restrains the forward directed motion of the overall preceding development. Second, the segment introduces a new two-element motif *z* consisting of triplet quarter note chords on the one hand, and of a sixteenth note downbeat followed by a longer chord on the other (see mm. 40-42, example 2). And, finally, this closing segment introduces a ternarity of its own with motif *z* enclosed by two almost identical instances of motif *x*. Two final remarks regarding part A's temporality as a whole. On the one hand it introduced an irregular three-phrase idiom, segment x^1 having a separate closing function, a structure which will reappear more than once in this quartet. Second, it establishes the principle of musical *montage*, originating in the composer's operas, as a device of juxtaposition of contrasting sections and musical materials.

As already mentioned, the central sections B, C and B^1 are more compact and, although clearly presenting *different* musical material, are perceived simultaneously as the central three sections of a palindrome form *and* as the middle part of a ternary from, combined on the basis of the montage principle. The three sections encompass 11, 15 and 14 measures respectively, a total of 40 measures, making them approximately equal to section A consisting of 45 measures. Taking an actual performance as a case study in order to consider the variation in tempo, it is noteworthy that in the performance by the Schoenberg Quartet all sections, including the coda, last just a few second over one minute[4], thus confirming our hypothesis on the ternarity co-existing with the palindrome form.

Section B, in tempo *Con moto* (♩ =96) and in the dominant key of B major, develops a two-measure melodic motif based on the rhythmic contrast between triplet and ordinary eighth notes on the background of a triplet eighth note accompaniment

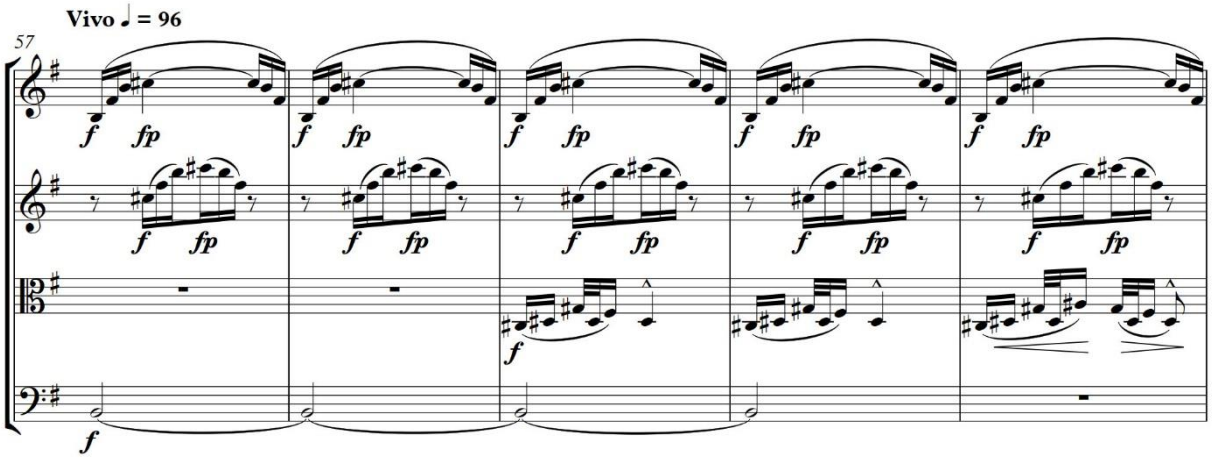
[4] Janáček, Szymanowski String Quartets. Schoenberg Quartet. Essex, England, Chandos, Chan 10405, 2007.

(Example 3). Overall, the section comprises five statements of this motif with the last statement prolonged to consist of three measures. Thus the principle of an uneven number of phrases established in the preceding section is here confirmed. *Temporally*, the texture exhibits clear signs of poly-metric organization. Apart from the basic melodic motif's each first measure and the mentioned triplet accompaniment, the rest of the texture is written in a simple 2/4 time signature. This poly-metric perception of the section is further strengthened by the metro-rhythmic contrast between the triplet accompaniment and the motif's first measure. The melodic pattern or gesture of the latter, although formally consisting of triplets, is perceived as a (2+2+2) 3/4 pattern rather than a (3+3) triplet or 6/8 pattern. As a result, a three-strata temporal texture emerges, in which each temporal stratum has its own metro-rhythmic temporal organization.



Example 3: 1st mvt. mm. 46-51

Section C, the central section of the palindrome, preserves both the metronome indication (♩ =96), though now paired with the term *Vivo*, and the key of B major from the preceding section, thus emphasizing the unity of the central sections B and C. The melodic motif this section develops is clearly *new* and *different*, but the two sections have in common the metro-rhythmic division of the texture into temporal strata based on the juxtaposition of triplet sixteenth notes in the background figurations and the simple 2/4 time of the basic melodic motif (Example 4). Overall, the section comprises three three-measure phrases, a structural reminder of the three statements of the *xy* motivic complex of section A.



Example 4: 1st mvt. mm. 57-61

It is noteworthy that, although sections B and C present strongly contrasting materials in relation to section A, the triplet rhythmic element of both sections is already prepared by the triplet quarter note motif *z* of section A's closing segment x^1. Section B^1, in addition to it presenting the beginning of the retrograde motion within the palindrome form and the local recapitulation within the middle part of a ternary form, also exhibits discernible re-transitional features. This section, due to its three-fold meaning, offers the listener a diversity of simultaneous temporal meanings as retrograde in the palindrome, recapitulation and re-transition, alongside a somewhat mitigated poly-metric texture.

The return of the palindrome's final section A^1 is curtailed through the omission of the internal statements of motif *x* leading to an overall structure ($x\ y\ y\ y\ x^1$). Though the absence of the *x* motif mitigates the notion of temporal superimposition, the tempos of the three motif *y* statements present a retrograde of its tempos in the opening section with the tempo moving from (♩ = 240), to 232 then 224 respectively, thus emphasizing the movement's palindrome principle. The closing section x^1 is the slowest in the whole movement with a tempo of (♪ = 52).

The coda encompasses a recapitulation of both sections B and C with durations approximately equal to those in their earlier soundings. The statement of the section C material also retains its three-phrase three-measure structure. The movement ends with a short three-measure statement of the *x* motif. The coda as a whole, then, in fact offers an additional freely combined cycle of the three sections of the palindrome form (Table 1).

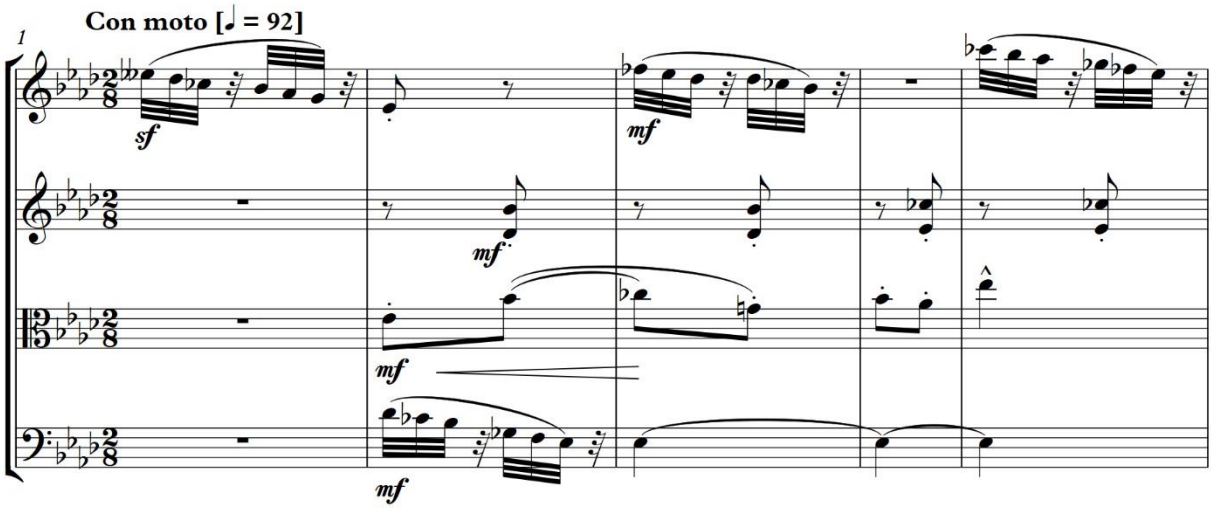
Thus the quartet's first movement unfolds primarily as a palindrome ach form that is simultaneously perceived as a ternary form, the middle part of which is likewise a ternary form. The middle part's recapitulation section B^1 forms the beginning of the palindrome's retrograde motion with additional re-transitional function and features. The coda, equal to the preceding three parts of the ternary form, presents an additional cycle recapitulating sections B and C in the home key. The coda then ends with a final curtailed statement of the opening motif *x*. Within this overall structure various procedures of intercutting, superimposition and juxtaposition of motifs, musical material and temporal strata are applied, as well as the use of irregular and uneven phrasings and phrase-structures confer both complexity and temporal structure upon the eventing of musical materials. This effect is enhanced by the use of the montage principle in combining and juxtaposing contrasting sections and materials. It is also important to emphasize the temporality inherent in the palindrome and which entails a past-oriented retrograde temporal directionality, a backward motion of themes and tempos manifested in this movement on several levels.

The **second movement** presents a cyclicity based on the alternation of three musical materials or themes, contrasting in character and tempo, although not every return of a theme presumes the return of *exactly* the same tempo (Table 2). Again, the themes alternate using the principle of montage. The overall form is close to that of double variations with an added third theme sounding only twice. Simultaneously it resembles a multi-sectional rondo with abbreviated refrains and multiple returns of episodic materials with strong elements of development. Cyclicity is thus the very essence of the movement's form and structure, a cyclicity characterized by inherent improvisation, tonal development and abbreviation. Recurrences of themes, especially those of the first theme or refrain, are often mere reminiscences or reminders of their original sounding. The main episodic material of the third theme is developed primarily by moving it through various tonalities and is once combined with the transitional second theme.

Table 2: The overall structure and cycles of the second movement

	A	B	A	C	A	C	A	B+C	A	C	A	C
mm.	1-47	48-62	63-67	68-114	115-122	123-124	125-128	129-143	144-148	149-224	225-228	229-236
mm.	47	15	5	47	8	2	4	15	5	76	4	8
			=18-22		=2-9		(=2-5)		=18-22		=2-5	
Tempo	92/84	66	84	144	104	88	84	66	84	152	84	69

Curiously, the opening theme sounds in its wholeness only once, at the movement's beginning. It encompasses 47 measures consisting of a repeated 23-measure period. The original period entails *three* statements of the basic four-measure motif *x* (Example 5). We have here, then, in the *three* statements of motif *x* another instance of the three-fold structure established in the first movement. As in the first movement, this is followed by a last sounding of an altered motif x^1 forming the period's closing segment. This last statement is clearly perceived as discrete and has a discernible closing function as it is separated from the preceding statements by the general pause and is presented in a *different, slower tempo*. Altogether the temporality of the section is thus rather labile and strongly tends toward an overall improvisational *rubato*.



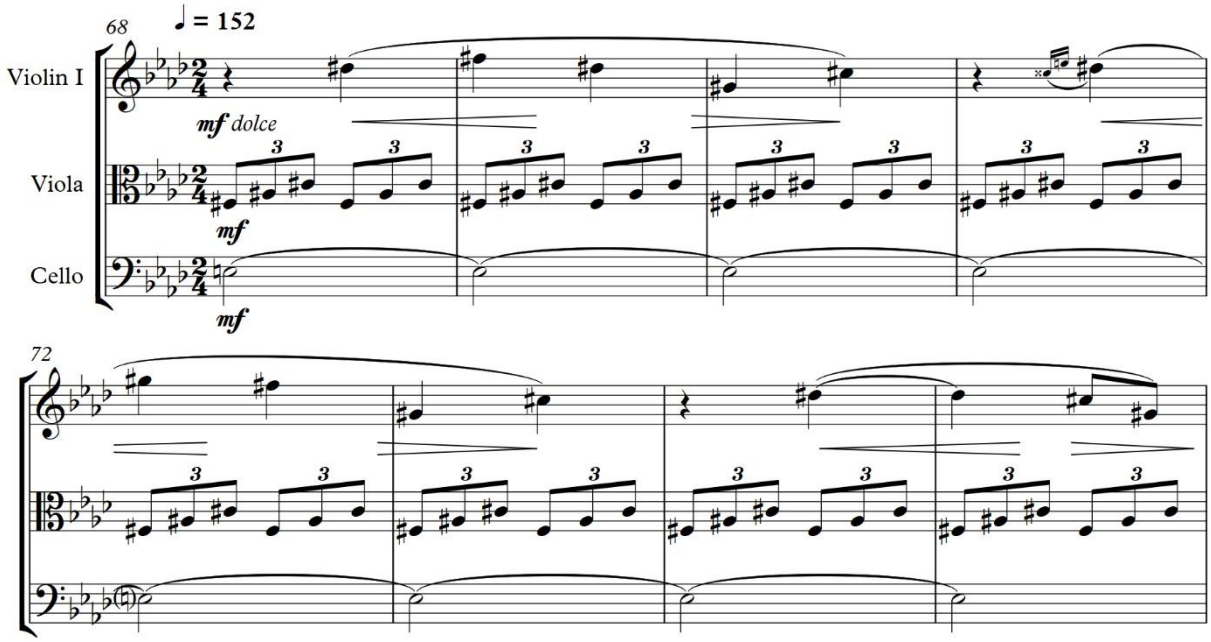
Example 5: 2nd mvt. mm. 1-5

The ensuing recurrences of the opening theme are strongly truncated. The motif sounds twice in the form of the closing variant x^1 in mm. 63-67 and 144-148; twice in the form of the opening version of mm. 2-5 in mm. 125-128 and 225-228, the second of which is the only transposed recurrence (to B♭ minor); and, finally, once as it sounds in mm, 2-9 in mm. 115-122 (see table 2). Thus motif *x* is not really subjected to any serious procedure of variation or development, its recurrences are rather short fragmentary reminders of the refrain-like theme, with only one of them transposed out of the home key of A♭ minor.

The second theme in the order of sounding, motif *y* (mm. 48-62), is based on a tremolo *sul ponticello*[5] motif in the three higher strings, sounding on the background of trills in the part of the cello. It has more of a transitional function in its first sounding than the character of an autonomous theme. Its only recurrence is in a developmental section in mm. 129-143, where it is superimposed on the third theme *z*. In both its instances it sounds in a considerably slower tempo (♩ = 66).

The third motif *z* first sounds in mm. 68-114 on the background of arpeggiated triplets reminiscent of those in the first movement's middle sections. The theme is presented in four phrases, each consisting of, again, *three* sub-phrases, and with the last two statements entering stretto (Example 6). This theme recurs is mm. 149-224 in a prolonged version due to the repetition of its final segment. It also sounds in abridged versions in mm. 123-124 and at the end of the movement in mm. 229-236, as well as combined under the superimposed motif *y* in the already mentioned developmental section in mm. 129-143. Theme *z* is the theme most consistently developed, especially through moving it through various keys and transpositions. It also enjoys a large variability of tempos that in different instances include (♩ = 144; 168; 66; 152; 160; 176; 69), in addition to several gradual accelerations and decelerations of tempo.

[5] *Sul ponticello* is a string technique in which the bow is played close to the bridge so as to bring out the higher harmonics producing a nasal or squeaking scratching sound.



Example 6: 2nd mvt. mm. 68-75

The second movement thus unfolds as a free improvisational cyclicity of two primary and one additional transitional musical materials, characterized by both strongly abridged as well as developmental and combined recurrences and one instance of superimposition. Its most poignant temporal feature is the consistent change of tempo with the alternation and montage juxtaposition of musical motifs and themes on the one hand, and the multiplicity of indicated gradual accelerations and decelerations of tempo within the alternating sections on the other. The montage-style juxtaposition and mutual interruption of musical materials and elements contrasting in both character and temporality is thus the primary procedure of musical unfolding and development.

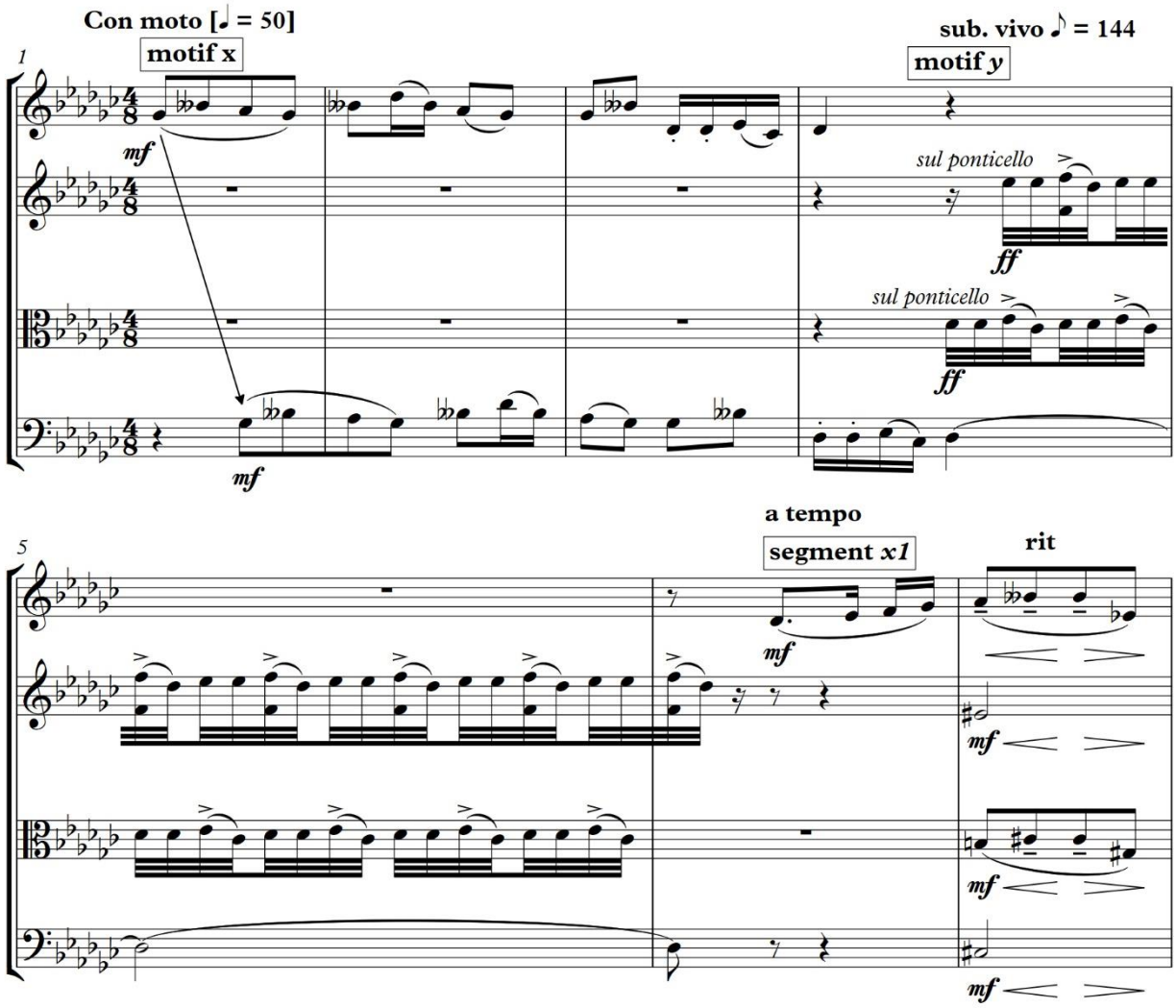
The **third movement** unfolds in a cyclicity largely resembling a five-part rondo with a refrain developed and varied in its recurrences, in contrast with the static and abridged recurrences of the opening theme in the preceding second movement (Table 3).

Table 3: The overall structure and cycles of the third movement

	Refrain	**Episode 1**	**Refrain**	**Episode 2**	**Refrain**
mm.	1-34	35-59	60-76	77-92	93-103
Tempo	♩ = 50	. : 𝅗𝅥 76	♩ = 54	♩ = 54	♩ = 46
Motifs	*A(x-y-x¹...)*	B	A (develop. x^1)	C	A (x-y-x^1...)+ c

The movement opens with section A, the refrain, similar in its structure and temporality to the opening section of the first movement. It is based on the repeated mutual interruption and superimposition of two motifs contrasting in character and tempo, once more using the already familiar montage principle. The first theme *x* is a plaintive melody in D♭ minor presented in canonic imitation, in its first statement between the first violin and the cello (Example 7). The tempo is a solemn *Con moto* (♩ = 50). This theme is interrupted on the cello's last note by the second violin and the viola playing a fast squeaking and impulsive texture introducing motif *y* with the indications *sul ponticello* and ***ff***, in canonic imitation as well, and with the tempo changing to *Subito vivo* (♪ = 144). With the cello's last note D♭ sustained until the end of motif *y* an effect of a superimposition of temporally contrasting materials is achieved, similar to that in the beginning of the first movement. A final truncated plaintive closing segment x^1 ends the period. This combined *xy* complex is repeated six times forming a new version of the already familiar three-phrase structure. Thus, the six-measure opening period is repeated,

including the closing x^1 segment, with some minor alterations, in F# minor. The period is then repeated twice, now abridged to contain only three measures and with the x^1 segment omitted, in B minor and E minor. Another two statements in B minor follow, each consisting of only two measures. Thus the following overall three-part structure in formed: 6+6/3+3/2+2. The progressive diminution of the initial period creates an effect of temporal acceleration, compression and intensification. The montage-like alternation of the two motifs is combined with numerous gradual and abrupt changes in tempo, all together resulting in a sense of improvisational impulsive mutual interruption and superimposition of the two motifs as two temporal strata, and evoking a sense of affective and rhetoric dramatization. Another essential aspect to the formation of the section's temporality is the element of canonic imitation, resulting in a horizontal shifting of temporality, a kind of an *oblique temporality*.

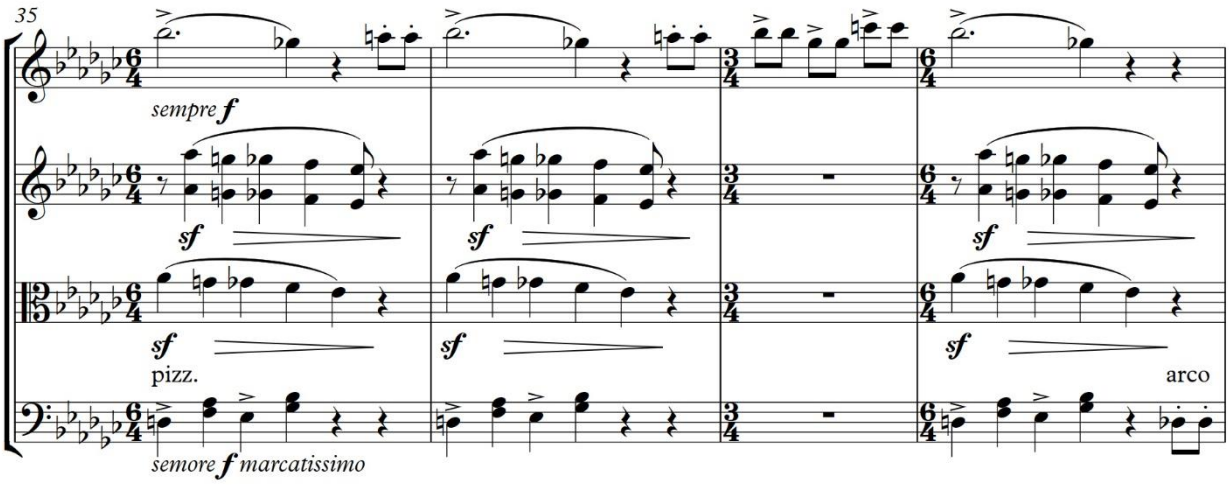


Example 7: 3rd mvt. mm. 1-7

Section A ends with a ten-measure period with both closing and transitional functions. The period's bi-functionality, together with its impulsive free development of the *y* motif introduces an element of improvisation into the whole section's temporality that allows it to fluently pass over into the following section.

Section B, or the first episode, introduces a new contrasting theme in the tempo *Vivo* (𝅗𝅥.= 76) and the time signature 6/4. The theme is in the dorian mode and is presented *thrice(!)* in dorian E♭ minor, A♭ minor and F# minor (Example 8). It

is accompanied by characteristic chromatic *pizzicato* chords and a crawling descending quasi *passus duriusculus*. The theme itself consists of four measures in which the basic motif of a descending major third, initially B♭-G♭, in repeated *thrice*. A 3/4 measure, interpolated between the motif's second and third soundings, interrupts the theme's temporal regularity and periodicity. It is a break in temporality and presents a *temporal intercut* in the Cliftonian sense of the term. *Ternarity* is thus presented twice in this theme: the whole four-measure theme sounds thrice, and in it the basic motif of the descending major third sounds thrice as well. As in previous soundings of the triple structure, a final statement of the theme, prolonged to eleven measures by way of repetition and augmentation of the theme's final motif, presented in canonic imitation between the cello and the first violin, leads to the return of the refrain material. Again, as in the preceding refrain, we have here in the final period a closing segment turning into what functions as a transition, or rather re-transition to the returning refrain.

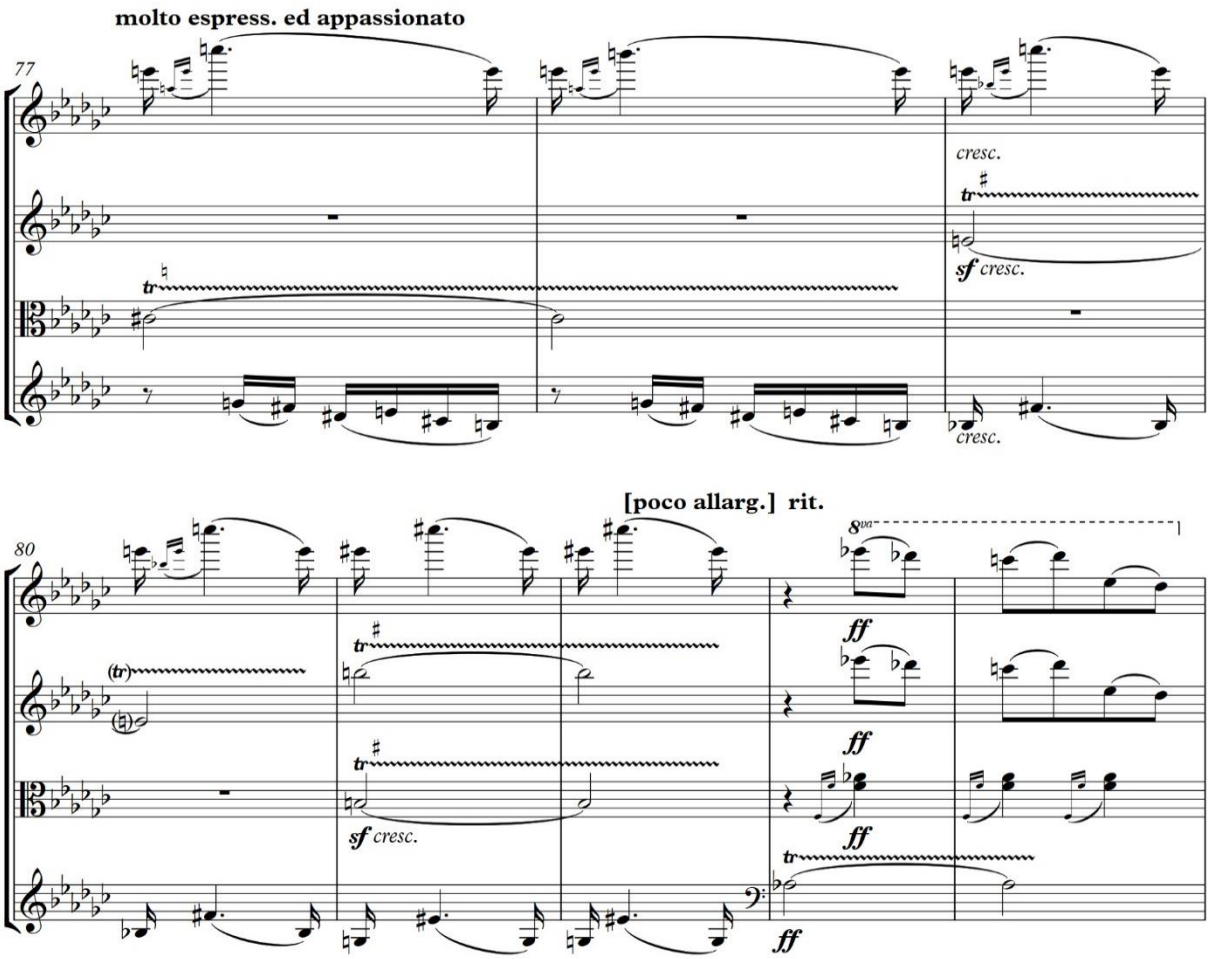


Example 8: 3rd mvt. mm. 35-38

Though functionally a first episode in a rondo form, in the manner of its introduction and presentation section B is closer to an interpolated contrasting episode, due to its unexpected interruption of the flow of the preceding section's closing segment. It can thus be qualified as a *temporal intercut* (after Clifton), with its own temporality interrupting that of an unfolding eventing, "thrusting a different and relatively unanticipated foreground into the foreground and middleground levels" (Clifton, 1983: 110) of another eventing. An important aspect of Clifton's description of a temporal intercut also applies here, namely that "the experience of a temporal intercut is never securely validated until one has the chance to perceive what lies on the other side of the intercut" (Clifton, 1983: 113), since the intercut presupposes the resumption or repetition of the previous musical idea, theme or material *after* the intercut. The ensuing return of the refrain material thus validates the status of the episode as a temporal intercut.

The return of the refrain is actually a development of its final closing segment x^1 of measure 7 (Example 7), by way of its gradual diminution. Starting in the tempo *Andante* (♩ = 54) it gradually turns into an agitated arrangement with motif x^1 sounding in the melody in eighth notes and in the background in restless thirty-second notes. This refrain in its temporality and function repeats the structure of the final episodes of both the opening refrain and the first episode. It in fact functions simultaneously as a transition, especially in its final measures marked *Poco agitato*, and flows directly *into* the following second episode.

Section C, or the second episode, is introduced by the superimposition of its theme directly on the last two measures of the continuing development of the preceding refrain motif (Example 9). The episode is based on a one-measure motif encompassing a rising leap of varying interval. The episode is thus superimposed directly on the ongoing development of preceding refrain material, forming another *temporal intercut*, with its material thrust into the foreground and middleground of the refrain in a montage-like manner.



Example 9: 3rd mvt. mm. 77-82

The final return of the refrain is reached through a distinct four-measure transition, and is abridged to only 11 measures. The montage-style alternation of the two tempos of the first refrain is maintained, but there is an overall gradual deceleration in the tempo of motif *x* (♩ = 46) to (♩ = 44), and finally to (♪ = 76). The movement thus end with a fragment of segment x^1.

The significance of temporality in the forming of the movement's structure is thus extremely poignant. Each section has a temporal element essential to its unfolding. There are several basic temporal structural elements common to all sections: 1) the triple structure consisting of three statements of a theme or motif, with or without modification, sometimes, as in the second episode, with the same triple structure built into each single statement; 2) the recurring phenomenon of a fourth statement, often prolonged and modified, transfiguring into a transition/re-transition by way of the development of some of its elements or motifs; 3) the superimposition, intercutting and interpolation of contrasting musical elements and motifs, even materials, leading to the merging and superimposition of their temporalities, be it within sections or on the borders between sections; 4) the overall lability of tempo as a result of numerous gradual and sudden changes indicated in the score; 5) the persistent and poignant lability of structural functionality of various thematic and temporal segments and even whole sections which leads to the overall lability of formal structure, as the latter is made open to divergent interpretations and perceptions; 6) the repeated use of the montage principle in the juxtaposition, interpolation and superimposition of musical materials on various levels.

The **fourth movement** has a highly complex and intense developmental character. It combines a multitude of citations from the preceding movements with the emergence and development of two new themes, and is designed as a conglomerate of contrasting and mutually referential sections, In this movement the montage principle is the dominating device of juxtaposition

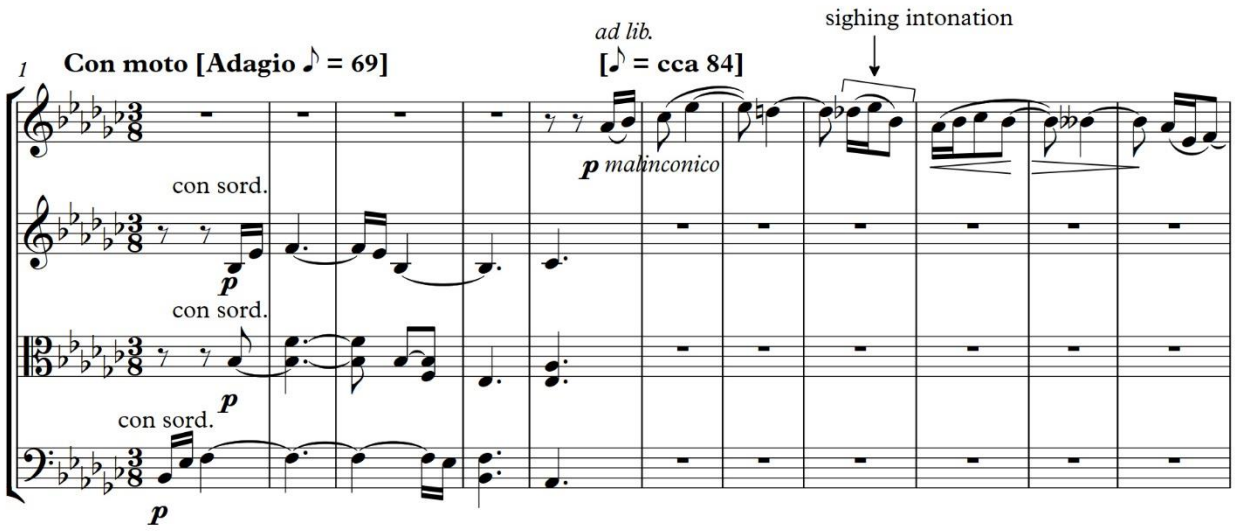
of contrasting sections and materials. Its overall structure is most appropriately described as a five-part palindrome with a large compound coda functioning as a coda-epilogue for the whole quartet (Table 4). Its temporality is based on this contrasting sectional palindrome paradigm and, on the sematic level, on its high referential and developmental intensity.

As in the first movement, in this palindrome the first section is also noticeably longer than the duration of the three central sections together (Table 4). The perception of an internal ternary form consisting of the central three sections, though present, is however mitigated by the thematic inconsistency between B and B^1 as we shall see. The coda, despite of its large number of measures and due to the predominantly fast tempo, is equal in duration to that of the three central sections.

Table 4: The overall structure and cycles of the fourth movement

Section	**A**	**B**	**C**	**B^1**	**A^1**	**Coda**
Mm. no.	1-36	37-58	59-77	78-95	96-126	127-189
Mm.	36	22	19	18	31	63
Duration[6]	1'39"	1'21"			1'3"	1'22"

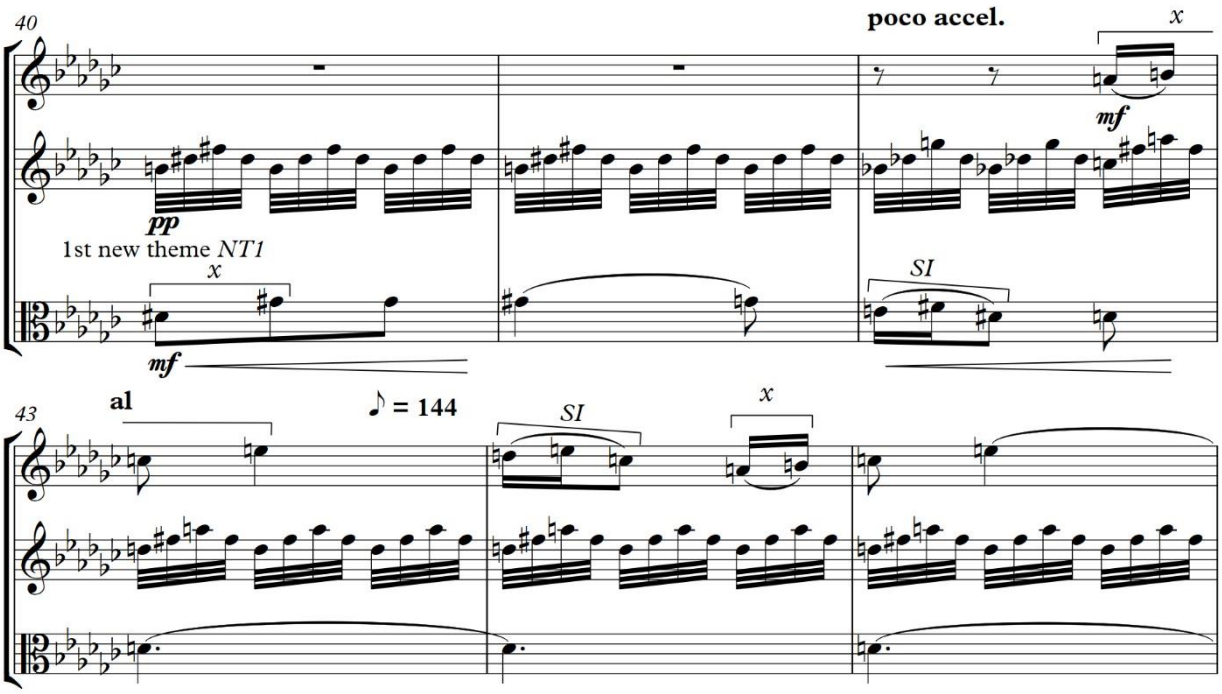
The first section A (mm. 1-36) is based on the quartet's opening measures, while the theme's *y* is replaced by a calmer recitative-like and less contrasting melody y^1 performed *ad lib* (Example 10). Incorporated into this solo monologue-theme of the violin is a sighing intonation or motif (*SI*) (Example 10, m. 8). Josephson will refer to a later, more developed form of this intonation, as a "feminine, chromatically sighing" intonation (Josephson, 1995: 407). Thus the original structure of the opening theme is maintained, although the affective and semantic content is altered. The section includes *five statements* of this new xy^1 structure. Of the five statements, however, the fourth is a repetition of the third, both being shorter in duration than the surrounding statements, and the fifth is a recurrence of the first, which results in a *three-phrase structure* with an added repetition and a rounding recurrence. Multiple tempo indications allow for a fluent rubato effect in the music's unfolding.



Example 10: 4th mvt. mm. 1-11

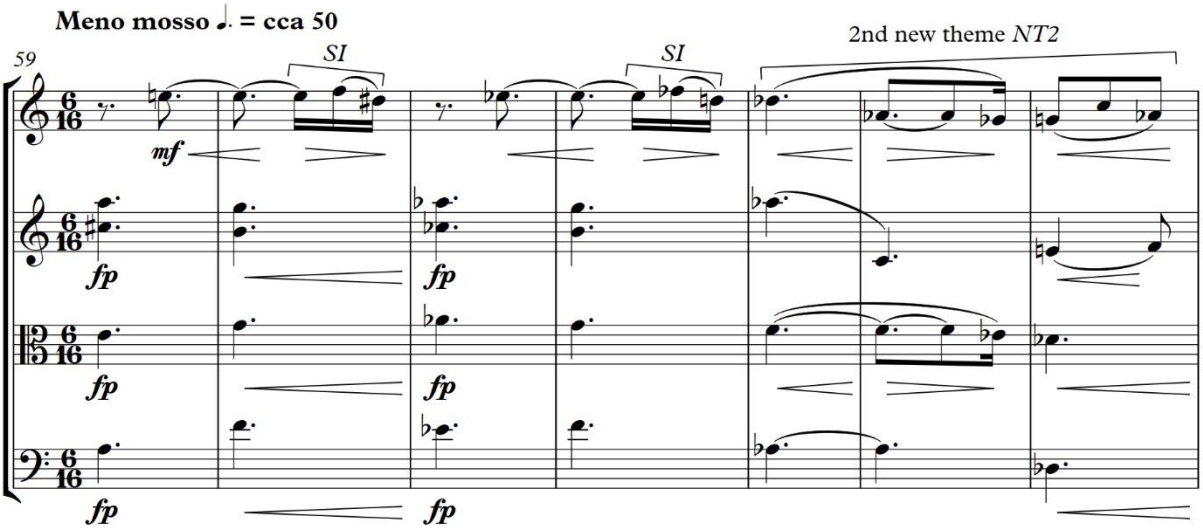
The second section B (mm. 37-58) introduces, on the background of thirty-second note *alberti-like* accompaniment, a new theme (NT^1) which has both the sighing intonation and the opening motif *x* incorporated into it (Example 11). This section, which has a total of eight statements of the short *three*(!)-measure phrase, is contrasting in both its agitated energetic character and its tempo, almost twice the preceding tempo *Un poco più mosso* (*Con moto* ♪= 138).

[6] In accordance with the above mentioned performance by the Schoenberg Quartet.



Example 11: 4th mvt. mm. 40-45[7]

The third section C (mm. 59-77) combines the clearly discernible function of a transition with that of a central episode of the palindrome. The latter is underlined by the fact that it is here that the movement's second new theme (NT^2), based on a simple yet memorable three-measure rhythmic figure, is first heard (Example 12, mm. 63-65). The section also includes the sighing intonation, and it is here that Josephson mentions it and traces it back to the second sounding of the third movement's refrain (actually developing its closing segment x^1, i.e. measure 60-66/3rd mvt.). This seven-measure phrase consisting of the two mentioned elements (Example 12) sounds *thrice*, with the third statement circumscribed to five measures instead of seven, which is due to the omission of the initial two-measure repetition of the sighing intonation.

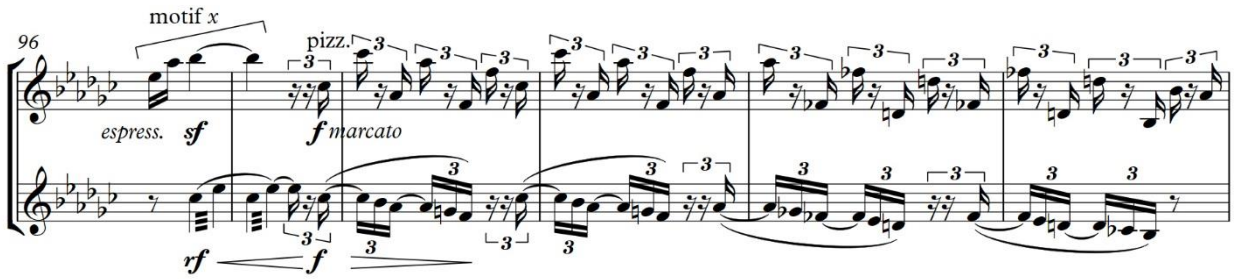


Example 12: 4th mvt. mm. 59-65

[7] The example is given without the part of the cello which enters only in m. 52.

The following fourth section B^1 (mm. 78-95) forms a return of section B on the bases of character, tempo and alberti-like accompaniment. Thematically, however, we hear a return of the opening *x* motif in contrapuntal development with the movement's second new theme introduced in the preceding section C. (mm. 92-94). Section C thus, though starting the returning path of the palindrome, continues the preceding line of development. Another reference to the past is made in the form of fast arch-shaped arpeggiations (ascending and descending), clearly citing the similar element in the central section C of the first movement (mm. 57-71).

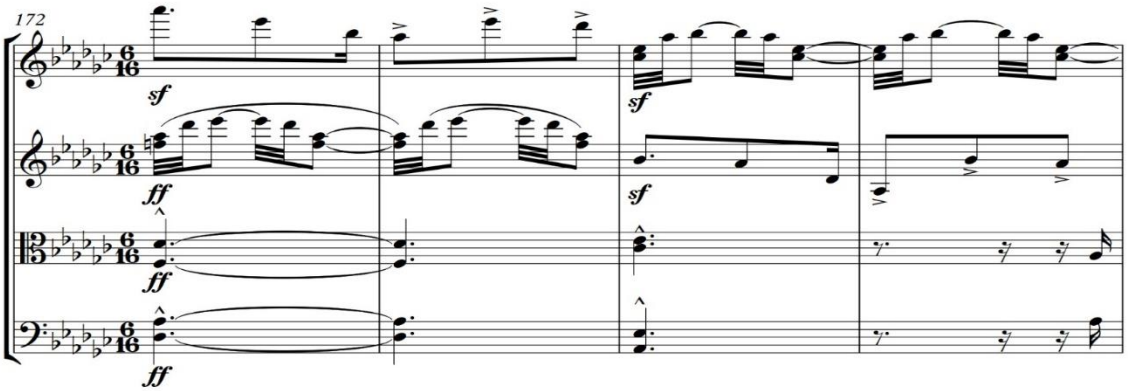
The fifth section A^1 closing the palindrome (mm. 96-126) is most clearly indicated by the return of the opening motif *x*, albeit in a very much abbreviated manner (Example 13). The opening motif is now answered by y^2, descending scale-like passages accompanied by accented *pizzicato* triplet notes. These passages clearly refer to the opening measures of the second movement (Example 5), as well as, in Josephson's reading, to the *passus duriusculus* of the third movement's measure 35 and after (Example 8). The section culminates in a recapitulation of the first movement's climactic measures 38-45, i.e. x^1 together with the triplet chordal motif *z* (Example 2), which closes the section and leads to the coda.



Example 13: 4th mvt. mm. 96-101

The coda itself has a compound structure and consists of two contrasting sections. The first section (mm. 127-168) clearly refers to the movement's second section B in both its energetic character and tempo. Thematically it combines the movement's opening theme based on the *x* motif and the sighing motif (*SI*) on the one hand, and the arch-shaped arpeggiations of the movement's section B^1 referring back to the first movement's central section on the other. In the section's final measures the movement's second new theme (NT^2) is also heard in the first violin. All these themes and motifs sound on the background of a galloping chordal accompaniment, on which afterwards the alberti-like accompaniment of section B is superimposed.

The coda's second section functions as a calm fading-away epilogue that combines the movement's second theme with slow and small in range arpeggiations (Example 14). Table 5 below shows the themes and motifs sounding separately and combined in each section including the coda.



Example 14: 4th mvt. mm. 172-175

Table 5: The overall structure, cycles and content of the fourth movement

Section	mm.	Thematic content
A	**1-36**	opening motif of 1st mvt. *x* answered by violin recitative *y1* with incorporated sighing intonation *SI*. 5 statements.
B	**37-58**	1st new theme *NT1*: *x*+ *SI*, 32-nd Alberti accompaniment
C	**59-77**	*SI*, 2nd new theme *NT2*
B^1	**78-95**	opening motif of 1st mvt. *x* (*NT1?*), *NT2*, 32-nd Alberti accompaniment, arch-shaped arpeggiations from *C*/1st mvt.
A^1	**96-126**	opening motif of 1st mvt. descending passages (opening of 2nd mvt. & *passus duriusculus*/3rd mvt.), *x1*+z/1st mvt.
Coda	**127-189**	
	127-149	opening motif of 1st mvt. *x*, *SI*, arch-shaped arpeggiations from C/1st mvt., triplet gallop-like accompaniment
	150-168	opening motif of 1st mvt. *x*, *NT2*, 32-nd Alberti accompaniment
	169-189	*NT2*, arch-shaped arpeggiations

The last movement thus combines the functions of a recapitulation with that of an epilogue to the whole quartet. Its temporality is mainly dominated by past-oriented *referentiality through multiple recurrences of* themes and motifs from the preceding movements as a past that has become present. Sections and themes contrasting in thematic material, character and tempo are often juxtaposed using the principle of montage. Of the two relatively new themes that appear in this movement, the first actually consists of the intertwined intonations of the quartets opening motif *x* with its rising fourth and two-sixteenth notes anacrusis, and the sighing intonation (*SI*) from the third movement. Recurring motifs in this movement are also the descending scale-like passages recalling both the second and third movements, and the arch-shaped arpeggiations recalling the first movement's central episode. The mutual superimposition of these citations and references as well as their accompaniments naturally entails a superimposition of their temporalities as a recurring temporal feature of this quartet. As in the first movement, the finale's coda is large, consisting of 63 measures, multi-sectional, and presents an additional freely composed cycle to the palindrome, with all the movement's preceding themes and motifs recurring.

It is important to stress the past-oriented retrograde temporal directionality intrinsic to the palindrome arch form by its very nature. This palindrome temporality is manifest in the current movement on the level of themes, tempo and character. The latter two aspects are of special significance for this movement's form because in respect to thematic material sections B and B^1 are not from identical. Temporality as tempo thus becomes one of the main characteristics for the identification of sections within the palindrome as well as the main feature of their contrast. Nevertheless, the overall tempo of the movement is relatively labile with multiple tempo changes, including gradual accelerations and decelerations, and even an *ad lib.* indication in the 1st violin's monologue theme. Two factors counter-effect the latter structure. On the one hand there is the factor of structural lability evoked by the bi-functionality of section C as both central section and transition, despite the emergence of a new theme. This overall structural lability is reinforced by the coda's large size, as well as by it presenting, as was the case in the first movement, an additional sectional-thematic cycle to the palindrome. On the other hand, the overall cyclic structure is counter-effected by a sense of continuous cyclic development evoked by the perpetual recurrence of themes, motifs and elements in new modifications, combinations and thematic and temporal superimpositions, as well as interpolations and temporal intercuts employed in montage-like manner.

Conclusion

Our analysis clearly shows Janáček's preference for the palindrome arch form and rondo-like forms that entail multiple recurrences of one or more sections or themes. In their recurrences themes are mostly varied, occasionally transposed and often curtailed, sometimes to the duration of a mere referential hint or reminder. The palindrome form in the quartet's first and fourth movements is paralleled by an overall sense of ternarity in which the middle three sections form the middle part.

This effect is due to the large size of the first section in comparison to the middle three sections (movements I and IV), and to the contrasting bi-thematic structure of the opening section (movements I, III, IV). Each of these forms entails a specific temporality related in the palindrome form to a retrograde temporal directionality which is sometimes, as in the fourth movement section B^1, based on features of tempo and character without the literal recurrence of thematic material. The two palindrome forms of this quartet are followed by large multi-sectional and multi-thematic codas presenting additional freely composed cycles to the palindromes and recapitulating a number of the movements' themes.

The relation of sections in all four movements exhibit numerous compositional devices related to temporality that include temporal intercuts, interpolations, juxtapositions and thematic and temporal interruptions, often employed together with a montage-style technique. The superimposition of themes and accompaniment textures also entail a superimposition of their temporal strata, especially in the first and fourth movements. Some sections also display features of functional ambiguity and lability as they can be perceived and interpreted in more than one functional meaning, for example as central section, transition/re-transition and/or recapitulation.

Another poignant feature of this quartet's temporality is the use of referential-semantic devices. This includes the multiplicity of inter-sectional and inter-movement citations of themes, motifs and intonations. This referentiality culminates in the fourth movement which is predominantly based on recurring thematic material taken from the preceding movements. Such citations and references may be literal, but are often subjected to changes and modifications. In some instances, the referential emphasis is put on the semantic aspect of a recurring motif as in the cases of both the sighing intonation (*SI*) and the chromatic descending passage similar to a *passus duriusculus*.

The tempo as a temporal aspect is in all four movements labile and extremely sensitive with numerous detailed indication. Tempo becomes a primary aspect of differentiation, identification and juxtaposition of themes. When recurring, themes often change their tempo, this also includes thematic recurrences within a single section, as is the case in section A of the first movement. Alongside the juxtaposition of tempos of various sections and themes, all four movements contain a multitude of gradual accelerations and decelerations of tempo as well as *ad lib.* sections. Of special interest in this respect is the juxtaposition, using montage, of the two motifs through drastically contrasting tempos in the opening section of the first and third movements.

A last temporal feature that becomes evident from the preceding analysis is Janáček's preference for the uneven or odd number of both measure in a phrase, as well as of phrases in a period or section. Especially poignant is the use of three-phrase structures which are sometimes followed by a fourth closing statement that is either curtailed or, on the contrary, augmented or prolonged. The use of five- and seven-measure structures are present as well.

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