Evolution of Meter in Russian Music of the Nineteenth Century and the Beginning of the Twentieth Century

Nineteenth-century Russian music had no problems adapting to the European classical-romantic tradition. The relationship between period structure and rhythmic development in classical-romantic music was governed by a unique, highly organized time regulation system. Around the turn of the century, rhythm took on new significance in Russian music, under the influence of typical folkloric elements. This development was to be a key factor in the 'rhythmic revolution' of the twentieth century. The author analyses the developments that led up to this rhythmic revolution, and examines them against the background of commentaries made by early twentieth-century Russian critics on these rhythmic innovations.

1 Rhythm in the music of the twentieth century is one of the decisive factors of style renewal. The new perception of time, plus new themes and images which have arisen in twentieth-century art, the complex interweaving of different traditions, new and radical aesthetic purposes: all these lead to an enriched rhythmic vocabulary and a changing rhythmic 'grammar' (i.e., a system of rhythmic organization). In this process of enrichment, which characterizes European artistic culture on the whole, Russia has made a considerable contribution. The years around the turn of the last century are those in which the 'rhythmic revolution' in Russia was defined. The complexity and contradictions of that period, felt especially acutely in Russian culture, provided for an intensive artistic search which focused upon rhythm. The search for new rhythmic expressiveness was pursued nationally, embracing different spheres of art. V.N. Khokhlova, a leading researcher in Russian musicology on the subject of rhythm, called Stravinsky and Prokofiev "Prometheuses, who stoked the fire of rhythmic dynamics in the music of their century." The palette of Russian rhythmic styles was completed by the rhythms of Scriabin, Rachmaninoff, Mettnar, Myaskovsky, Shostakovich, and the representatives of the Russian avant-garde of the twenties: Roslavets and Mozzolov. Rhythmic innovations in Russian poetry, drama and ballet took place parallel to the innovations in musical rhythm.

The change in the status of rhythm in the system of artistic language was connected with the active modifications of the standards of style which prevailed in the preceding epoch. In the first decades of our century, Russian critical and theoretical works, as well as manifestos of different trends in art, were permeated with the passion of overcoming traditionalism. There was, however, a norm in Russian poetry which was more important than rhythmic freedom; this was the 'syllabic-tonic system.' In classic-romantic music, meter served as a norm in a similar way. The process of the modification of rhythm joined the most important tendency in the evolution of musical language: the tendency towards disintegration and decomposition of functionally strong, centralized, organizing systems. These systems include: major-minor harmony, key, tonality, classic-romantic syntax, and standard compositional structures. According to E.A. Ruchyevskaya, the reduction of functional contrast and the decentralization of systems serve as a manifestation of the general style tendency towards 'indifferentiation', to reducing structure-giving levels in twentieth-century music.

Here are some characteristic opinions of critics at the beginning of the century related to the rhythmic innovations of their contemporaries:

1 T.N. Levaya, "Russkaya muzhinka nachala XX veka v muzikalnom kontekste" (Russian music of the beginning of the twentieth century in the musical context of the epoch), in: Muzika, Moskva 1991, p. 9.
Regarding Metner:

One encounters most unusual rhythms at every step. In this respect, Metner’s music deserves special attention; in its energy and power of rhythm, its refined elaboration, it ranks with Schumann’s.1 (1906)

Regarding Scriabin:

Mix thousands of rhythms and let the spasmodic syncope glide over them.6 (1909) The search for a ‘higher regularity’ within the apparent confusion of metric changes reveals virtual bars and the complex construction of units of beat which are smaller than the nominal one.7 (1916)

Regarding Prokofiev:

Prokofiev’s rhythmic gift is indisputable. His strength lies in tense, continuous, impetuous movement. But, however, he is often rhythmically monotonous. In the struggle between rhythm and meter the latter often wins, and that is why whole pages of the Scythian Suite seem roughly cut, coarsely ruled in squares.8 (1916) Prokofiev isn’t afraid of the simplest meters, he even prefers them, but what rhythm he kindles in them! I’m inclined to say that the music itself sometimes serves Prokofiev as mere ‘soil’ for ‘harvests’ of rhythm, and it is only due to them that the music can be accepted and justified artistically.9 (1917)

Regarding Stravinsky:

[In] his person we have an artist of great rhythmic talent.10 (1916) [How] many monotonous rhythms there are in The Rite of Spring, repeated over and over again! However many tricks with meter Stravinsky might make, he does not achieve real versatility. The final dance of the doomed victim is actually a kind of rhythmic para-

dox, but still there is no rhythmic life in it, and it seems to be easily reduced to duplets and triplets, with syncopations being there too, certainly.11 (1914)

In the next decade (the twenties) new features of instrumentation and musical rhythm—primarily metallic percussiveness and monotonous ostinato-like movement—find their substantiation as a justification of industrial culture, which, according to the critics, caused ‘machine-like creative methods’ in different arts, thus joining them to the universal rhythms characteristic of the modern world.12 Regular and irregular polyrhythmic meters evoke an association with the cinematic art of the twentieth century: ‘At a fast tempo a kind of cinematography is created: metric units are atoms which the composer freely groups at his own discretion, as is the case of The Sacrificial Dance from The Rite of Spring.’13 (1923) Thus, negative criticism on the one hand and the attempt to justify the new language on the other both pinpoint the phenomena of temporal musical organization which deviated from the former norms and were regarded as ‘paradoxical.’ The striving to fit complex rhythms into simple bars with syncopations, to find ‘actual’ bars, to announce the ‘winner’ of the battle between rhythm and meter (meter with Prokofiev, rhythm with Stravinsky), and the idea of ‘liberating’ rhythm from the power of ‘quaternary meters’ (I. Vishnevskij, were all characteristic critical attitudes symptomatic of the crisis of meter. In search of a substitute for normative meter, Russian theory of the early twentieth century turned to ‘exact’ methods of measuring rhythm: to mathematics, chronometry and acoustics. In this respect, the article by A. Avraamov—“Future Musical Science and the New Era in Music History”14 (1916) - is very illustrative. The author put forth ideas which were partly ahead of the rhythmic practices and theory of music of his time. Among these ideas were the arbitrary

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5 Y. Engel, “Izbranye Statyi O Ruskoj Muzike” (Through the eyes of a contemporary), in: Selected articles about Russian music, Chuvashskii Kompozitor, Moskva 1898-1918, p. 178.
7 V.G. Karatygin, “Izbranye Statyi” (Selected articles), Muzika, Moskva 1965, pp. 216-217.
8 V.G. Karatygin, “Izbranye Statyi”, p. 179.
10 V. Karatygin, “Izbranye Statyi”, p. 179.
11 V. Karatygin, “Izbranye Statyi”, p. 128.
15 A. Avraamov, “Gryadushchaya Muzikalnaya Nauka E Novaya Era Istorii Muziki” (Future musical science and the new era in history of music) in: Muzikalniy Sovremenik (Contemporary Music) n. 6, p. 86.
divisibility of a rhythmic unit, the introduction of complex polymeters, and a relationship between harmonic intervals and rhythmic proportions. Russian critics viewed sympathetically the thoughts of George Antheil, the composer of the Ballet mécanique, on the necessity of introducing a mathematically exact division of musical time. On the other hand, L. Sabaneev, in his 1917 article "Rhythm", tried to differentiate between rhythm and meter in terms of general theories based on contemporary psychology and aesthetics. (Particularly noticeable are themes that can be traced to K. Büchner and Sigmund Freud.) But in this article, not free of contradictions, by the way, meter was again regarded as a means of counting time, while ‘Rhythm struggles with meter as well as with the idea of simple counting.’ In general, the notion that meter had been exhausted and ‘worked out’ and that mono-metric notion had become nothing more than mere conventionality was in the air. There were attempts to ‘correct’ the notion of composers with the aim of finding ‘genuine’ bars,” and attempts were made to reform the rhythmic aspects of notation.

The dismantling of the metric aspects of notation was symptomatic of the decline of meter as a representation of rhythm. In compositions by Scriabin, Rachmaninoff, Metner, and Prokofiev there may be an omission of time signatures and bar lines, as well as an utter freedom of inter-bar groupings of motives. These composers, however, continued using the traditional methods of notation, which the rhythmic reformer Stravinsky elaborated and expanded. Stravinsky’s idea of meter and notation was not simple: the bar line was for him both the indication of an accent and ‘far more than an accent’, a sign of a syntactic border.” Nevertheless, Stravinsky thought that equal results could be achieved both through changes of meter and accentuation. The composer’s seemingly contradictory statements and his modifications of metrical aspects of notation (about this see C. Sachs) in revisions of his own compositions testify to the fact that for Stravinsky the graphics of meter had a meaningful and expressive spectrum, similar to that in the musical material itself.

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Meter was reformed in European musical culture at the turn of the century on the basis of various factors. The classic-romantic system of meter at the end of the nineteenth century relied upon ‘multiply-planned’ (Kholopova’s term) regular pulsations, crystallized in the music of Viennese Classicism. It was a highly organized system of regulating duration and accent. The accentual pulsations of classic-romantic meter accumulate at various levels, bringing a range of tensions and resolutions. Regularity and periodicity, which are norms in classical style, are fixed in mono-metric notation with a binary division (for the most part) of rhythmic units. The material basis of metric pulses on different levels consists of homogeneous rhythms, homophonic accompaniment, the periodicity of harmonic rhythm, and particular syntactic structures. The traditional notational system represents a powerful momentum, which does not need constant confirmation through accentuation on all of the pulsation levels: its comprehensibility is guaranteed by the complementary quality of distinctive pulse-levels and is rooted in the musical texture itself. Although predominantly regular, traditional meters nevertheless leave sufficient room for the expression of irregular and non-periodic temporal and accentual relationships, which may be represented by syncopations and hemiolas. Momentary pulsation failures and hindrances to momentum create ‘metric dissonances’; the more stable and complete the fundamental metric structure is, the more strongly expressed are the dynamics of metric dissonances.

But this is only one aspect of classical meter; another is its inertness, its inability to completely represent all multiple pulses. There is a distance between the system of representation and the rhythms it purports to represent. Many-sided accentual and temporal

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24 Cf. footnote 18.
relationships in musical material constantly form more or less active centers of resistance to normative metric structures: a phenomenon which is at the heart of the inner dynamics of classical meter. In spite of the 'laws' of meter, its regularity, periodicity, and the complementarity of rhythms on different levels, accentual and temporal relationships are main functions, as their modifications. Changes in accentual relationships may cause shifts of meter which do not accord with the nominal meter, which is preserved. (Cf. example 1, cf. also the key to symbols at the end of this article.) Changes in both accentual and temporal relationships effect a 'metric modulation', in which bar length or the bar's inner structure is altered, or both are altered simultaneously. (Cf. example 2.) The simultaneous existence of two different metric structures - most often the structure generated from time to time which compete with the governing pulsations, i.e., variant accentual and temporal relationships can generate a competing metric structure. Such a structure may also contain several levels, may have its own momentum, and may even be stable provided that it is not utterly whimsical and ephemeral.

Two terms adopted in musicology in relation to musical functions (modal, harmonic, textural, formal) are suited to define these metrical phenomena. These are "fixed functions" and "variable functions", realized respectively in fixed and variable metric structures. The fixed functions, the dominating relationships between accents and durations in the given musical text, are fixed by the number of beats in a bar and the groupings of notes. Variable functions, being secondary and subsidiary, are not reflected in notation (with rare exceptions, such as inter-bar groupings and phrase-markings) and almost always appear against the background of and amidst the representing fixed metric relationships combined with a structure representing one particular set of variable relationships - creates polymetry. (Cf. example 3.)

Mono-metric notation, being an expression of fixed metric functions, veils the variable metric structure, although it acts as a powerful psychological factor impacting upon the performer and, thus, upon his accentuation. Hence, while variable metric accents destabilize the main metric stereotype, the latter in its turn, through notation, destabilizes the variable metric structure. (In its notational aspect the phenomenon of metric variability is somewhat similar to modulations in sections of classical and romantic forms: the occurrence of a new tonality in a modulating period or in the development section of sonata form does not result in a change of key signatures.) It

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25 Metric functions variability theory is dwelt on in the author’s dissertation paper: "Metriceskaya Peremenost, eyo Formoobrazuyutscheye E Vrazitelnoye Znacheniya" (Metric variability, its formative and expressive significance) and in a number of articles, Leningrad 1983.
is upon this articulation of the fixed meter through its notation that the intensity of variable metric structures in classical and romantic music is derived. (Cf. example 4.)

The phenomena discussed above are often attributed to special and particular cases of non-regularity and non-periodicity (Kholopova), typically occurring in development sections. Ebenezer Prout, in his Musical Form, refers to such phenomena as 'cross-stresses'.

Example 3
Beethoven, Symphony No. 6, III.

Example 4
Haydn, Oxford Symphony, III, Trio.

(Cf. example 5.) Taken together, they constitute the metric organization of rhythm possessing features typical of the style, form, genre, and individuality of a given work, as well as features typical of the composer’s idiom in general. The metric superstructure, conditioned by the style and particular qualities of the musical material, is formed by the dynamic interaction of fixed and variable metric functions: by the constant restructuring of metrical structures - be they full of dramatic conflicts or be they gentle and pliant - within a given piece. It would seem clear that meter plays an active role in the creation of form, has different expressive meanings, and can serve as one of the indices of musical style.

No major research in the field of rhythm (cf. Sachs, Briner, Cooper and Meyer, Kholopova, and others) ignores the brightest early examples, where variable metric functions are most vividly expressed, the examples which are considered to be anticipations of the ‘floating’ rhythmic organization in the music of


28 O. Agarkov, "Ob Adekvatnosti Vospriyatiya Muzikal'nogo Mety" (On adequate perception of musical metre), in: Muzikal'nye Iskustva E Nauka (Musical art and science), 1st issue, Moskva Muzika 1920, p. 20.
the twentieth century. The issue, however, is neither one of precedents, nor of separate examples, nor of the techniques of rhythmic development, but of the very essence of meter: the unstable balance between fixed and variable structures, a balance which is upset in this or that direction during the evolution of musical style and idioms.

The historic development of metrical variability was strongly influenced by the styles of various musical genres. In the rhythmic-syntactic features of a piece with the improvisational quality of a Baroque prelude; in the classical minuet; in the romantic “Ländler” and waltz; in song-like instrumental melodies reflecting poetic rhythms; in recitative associated with prosaic rhythms; in the plastic figurations of Schumann’s miniatures: in all of these there is a predisposition to this or that type of metric organization each with its ‘imprinted’ metric variability (e.g., the metric shift in the saraband, metric modulation in the minuet, polymetry in the waltz) or particular type of motion (strong, steady beats in marches, stable, motoric pulsations in toccatas and etudes).

The other essential factor in the historic development of metrical variability resides in the ways of presenting and developing material and musical forms. Different metric organizations are required for the miniature and for large forms, for segmented and for through-composed forms. Classical syntax is predominantly periodic and symmetrical; the syntax of folk music is often non-periodic and asymmetrical.

What is the metric potential of Russian musical rhythm and to what extent has it prepared the ‘rhythmic revolution’ of the twentieth century? In her book *Rhythm in Russian Music* Khlopova attributes the nature of Russian rhythms to national typological features of melody formed in the tradition of Russian sacred music, namely, to various forms of asymmetry (asymmetric rhythmic-melodic patterns, variable bar sizes, asymmetric groupings of bars) and to certain recitative formulas. Asymmetric Russian rhythms are predisposed towards being contained in non-periodic, small-sized metric structures, of both the fixed and variable types. Of course, in the nineteenth century Russian music joined the stream of European music, and absorbed common European traditions alongside its own.

Thus, Beethoven’s conflict type of metric dramaturgy - tension in the unfolding of metric structures, collisions of fixed and variable momentums in metric modulations, accentual shifts, lasting layers of unstable pulsation - found its continuation in the music.
of Tchaikovsky, to a lesser extent in the music of Borodin, and, later, in the music of Taneyev. (Cf. example 6.) Scriabin and Rachmaninoff, in their early works, developed flexible variability within the bar based upon subtle groupings of polyrhythmic figurations, in the tradition of Mozart and Chopin. (Cf. example 7.) In Tchaikovsky’s music, characteristic thematic construction, full of accents and action, followed the Haydn-Mozart-Schumann line of metric variability, which served to create comic-theatricality or portrait-like representation.

Let’s consider example 6. Metric variability in the theme of Taneyev’s symphony is formed by an impetuous and sequential motific development. In the fourth bar the two-beat motive breaks through the ternary organization of the given meter, the accent being overlaid in a Beethovenian way. The pathetic motive of the culmination (bars 36-39) marks the strong beats of the variable bars (the A-flat is the first beat of the shifted 3/4 bar, C is the first beat of a 4/4 bar; D coincides with the first beat of the fixed meter). Echoing with metric ‘blew-ups’ of climaxes in Beethoven’s Eroica, Schubert’s Unfinished, Brahms’s Symphony No. 2 and Symphony No. 3, the metrical development in Taneyev’s theme is idiomatic in its attempt to expand movement through the accumulation of variant bars (with two, three, and four beats), which makes it different from the motivically compressed themes of the classical-romantic tradition. The imperative, climactic exclamations in Taneyev’s theme, augmenting the original rhythm of the motive, are saturated with declamatory impulses of non-periodic rhythms in relief, rhythms typical of the orator’s speech and found later in the heroic-pithetic ‘baroque’ thematicism in Shostakovich’s Symphony No. 5 and Symphony No. 8, in the theme of the Epigraph in War and Peace by Prokofiev, and in the initial theme of the Symphony in Three Movements by Stravinsky.

In example 7, polyrhythms and a finely differentiated texture typical of romantic piano writing reveal the rhythmic ‘aura’ of a precipitate, intangible, and versatil movement which is so characteristic of Scriabin. These qualities manifest themselves metrically in accentual shifts and metric modulations. A sequentially treated melodic unit consisting of four tones has two potential accents: on the first beat (simultaneously with the bass note) and on the second beat (simultaneously with the ‘middle voice’. The sequential unit itself divides the 6/8 bar into three groups of two beats rather than adhering to the norm of two groups of three beats. The movement in the lower voice (disregarding the accented second eighth-note) creates a 3/4 meter within the nominal 6/8 bar.

The musical environment of nineteenth century Europe, with its wealth of national melodies and rhythms, inspired the Russians in the development of their own forms of melodic and rhythmic invention and in the development of extra-musical imagery. ‘Foreign accents’ may be conveyed by means of metric variability: for example, the tendency towards metric modulation in ‘Spanish’ romances by Glinka and Dargomyzhsky, set to Pushkin’s verse I’m here, Enescela, and the tendency towards accentual shift in Conchak’s Aria in Borodin’s Prince Igor. A host of such examples is given by Khlopova in Rhythms in Russian Music; she interprets them in terms of asymmetry, non-quaternary groupings, and polymetry in the relationship between musical elements and in the relationship of text to music. Metric modulations are related to figurative representations in many numbers from Tchaikovsky’s ballets, such as The Sugarplum Fairy and The Waltz of the Snowflakes from The Nutcracker and Cat and Kitty from The Sleeping Beauty.

Favourite dance genres of the daily musical round cultivated in Russian chamber, symphonic and operatic music, such as the mazurka, the polonaise, the bolero, and, especially, the waltz, contained a pronounced amount of metric variability. Suffice it to recall the Waltz-Fantasia for piano and various operatic waltzes by Glinka, and the numerous waltzes from ballets, operas, orchestral suites and symphonies by Tchaikovsky. (Cf. example 8a and b.) All of these are permeated with metric modulations effected by hemiolas, accentual shifts, and polymetry.

Thus, in a theme from Tchaikovsky’s Symphony No. 3 (cf. example 8a) polymetry arises through the combination of a metrically simple two-beat accompaniment and a melody which progresses through different meters. The capricious rhythm and the flexible pitch line give the melody a ‘sliding’ character with the grace of a waltz, while the accompaniment remains ‘obedient’ to a deliberate two-beat meter (within the 3/4 bar). A melodic duet consisting of two rhythmically independent lines each with arioso-like melodic curves (which almost visibly recreate the
plasticity of ballet) is a specific feature of Tchaikovsky's polyrhythm, in contrast to the polymetric contrast of melody and accompaniment that occurs in waltzes by Schubert and, especially, by Schumann. Quite a different type of polymetry used by Tchaikovsky, with a melody which is rhythmically shifted in relation to the accompaniment - a type of polymetry used by Brahms and Chopin as well - is shown in the second theme-group of the first movement of the Symphony No. 5 (cf. example 8b). The deviant metric quality of the motive underlies the effect of 'soaring' movement. In the continuation, the subduced poetic waltz quality of the beginning of the theme is transformed into something ecstatic and rhapsodic: 'weightless' motives, moving towards the climax, gain melodic tension through the overcoming of metric resistance. Melody with metric variability and polymetry within the whole texture are the typical constituents of Tchaikovsky's brand of developmental expressiveness.

The national spectrum of variable metric formations is both enriched and generated by the specific rhythms and character of 'Russian' thematic construction. Intertwining melodies in a declamatory style derived from folk music, with dactylic rhythms, with the speech intonations of the common people, and with 'lamentations', contribute to motivic fragmentation and to the formation of small, rhythmically intense motivic units as the component elements of larger thematic wholes. This is what we see in the thematic construction of Rubenstein and Tchaikovsky (cf. example 9); this is one of the paths to the laconic, formula-like thematic constructions of Stravinsky, with their metric innovations.

An uneven, broken rhythmic-pulsation in the main theme of the first movement of Tchaikovsky's Symphony No. 4 (cf. example 9a) creates an irregular grouping of beats within the bar. Instead of the normal trochaic grouping of 3+3+3 one finds the variant 2+2+2+3; the dactylic ending is a characteristic Russian rhythmic pattern. During the further motivic development of the theme, the 'straightening' of its rhythm causes metric modulation. (Cf. example 9b.) The source of the metric tension of the symphony's thematicism lies in the rhythmic sharpness of the motivic kernel of the theme. There are similar qualities in the rhythms of the themes of the first movement of the Symphony No. 5, the String Quartet No. 1, and in themes of other works.

In Rimsky-Korsakov's opera Sadko, the descending patterns of Russian epic recitative (based upon the speech patterns of the common people) form dactylic motives which are defined by word stresses. (Cf. example 9c.) At the end of the phrase, however, is a trochaic unit (reflecting the accentuation of the text) which is in agreement with the nominal 3/2 meter.
Evolution of Meter in Russian Music

Moderato con anima

Example 9a and 9b

Tchaikovsky, Symphony No. 4, I.

Example 9c

Rimsky-Korsakov, Sadko, Recitative Sadko, Act I.

The speed of delivery of the tones during the unfolding of Sadko’s recitative and its even rhythm and stable phrase structure connect this example to those following. Narration requires asymmetric prose-like rhythmic patterns and rhythms which span large phrases, as seen, for instance, in Mussorgsky’s typical kind of thematic construction. (Cf. example 10.) Unstable and variable accents within the bar neutralize each other and cancel the potential momentum of different poetic feet, while a larger-scale rhythm maintains the stability and regularity of the metric structure. In the passage cited in example 10 Mussorgsky successively presents the same pitch sequence but with different phrasings. Composed in the genre of a ‘drawling’ song, with a characteristically gradual unfolding of the melodic line, with variant repetition, and with barely noticeable renewal of the melodic units, this instrumental melody seems to suggest a textual background: the phrases in bars 1-5 are cut short by rests just as words and phrases are in the folksloristic prototype. Each of the four phrases begins as if on a strong beat supported by a new breath, and the rhythm is wholly dependent upon the syntax. (Also

Example 10

Mussorgsky, Boris Godunov, Prologue.

note the parallelism in the endings of the second, third, and fourth phrases, each being trochaic, and the agreement between the openings of the first, second, and fourth phrases, each starting on the tonic tone C-sharp.) Thus, the melodic phrasing forms variable meter, which is non-symmetrical on one level and symmetrical on another: 3/2+2/2, 3/2+2/2. In the next group of phrases (bars 6-10) the regular
compression and expansion of phrases is replaced by a progressive compression: $7/4+5/4+4/4$. Metric variability here yields to the fixed meter $(4/4)$. Rimsky-Korsakov’s idea about the similarity of melodies in various irregular meters ($5/4$, $7/4$, $11/4$) is well known. These meters occur in association with rhythmically homogeneous melodies which have occasional internal accentual supports. In example 11 formulas contain within themselves the potential for different kinds of metric variability. Such rhythmic and phrasal formulas delineate two tendencies typical of metric organization later on in music of the twentieth century. One of these is connected with variant development often dictated by a thematic construction with a bias towards folk music, and led to variants both in fixed and variable

Allegro non troppo

Example 11
Rimsky-Korsakov, Sadko, Choir Act 1.

a) Lento maestoso $\frac{d}{4} = 54$

Example 12a
Stravinsky, Firebird.

Example 12b
Stravinsky, Rite of Spring.

the grouping within the $11/4$ bar ($2+2+2+3$) is virtually unexpressed in the melody and rhythm but depends upon word-accent. The $11/4$ bar, however, although here ‘invisible’ is important as the determining factor of phrase length in the continuation. Motivic and phrasal rhythmic formulas which governed the formation of meter gave possibilities for future ways of organizing rhythm, and were an anticipation of the metric styles of Stravinsky and Prokofiev. It is noteworthy that both kinds of

meters. (Cf. example 12a) The melody at the beginning of the Finale and in the coda (Allegro non troppo) of Stravinsky’s Firebird (example 12a) has a similar phrase structure. It is noteworthy that it is the support tones of the melody (F-sharp, D-sharp, C-sharp, B in the first phrase, E, D-sharp, C-sharp in the second) that guarantee clear phrase articulation, which is seen with especial transparency when the fixed meter, tempo, and rhythm change in the coda. There are a number of correlations between phrases
- their equality both in Lento (2+2) and Allegro (1+1)-
while the fixed meters are different (3/2 and 7/4), as well as are the number of tones. In terms of metric variability, however, the main interest lies in the hidden 3/1 bar at the beginning of the Finale as well as in the evident two-beat organization within the

Example 13
Prokofiev Visions Fugitives, op. 22, No. 17.

phrase in the Allegro. The accentuation of each tone of the melody, the brass timbre in combination with the tempo (in the tutti section), the 'straightened' rhythm, and the two-beat organization of the motives: all these give a march-like and hymn-like quality to this theme. The metric organization of this appearance of the melody as apotheosis reminds one of various passages with lyrical or epic character in the music of Rimsky-Korsakov (cf. examples 9c and 11) with their vague accentual quality. Stravinsky turned this kind of vague accentuation with its potential for metric variability into real variable meters, with multiple contradictory accents and a high degree of concentration.

Metric freedom within the phrase in the theme from the Introduction of the Rite of Spring (cf. example 12b) is based in part on the tonal peculiarities of the phrase. A six-tone melodic formula, in all of its variants, has the tone A as tonic, C as mediant, and B as an occasional tone center, dependent upon the rhythm. Tonal and rhythmic accents give metric support to the tone A in spite of its position in the bar of the fixed meter, whereas the initial tone C appears either in a strong or a weak metric position. The latter is even more true for the tone B; in the melodic succession B-G-E-B all tones, except the last, are sometimes slightly accented. The combination of improvisational-like rhythm and metric variability do not create a stable metric pulsation within either the fixed or the variable structures. Only the repeated metric support given to the tone A helps establish some commensurability between phrases, which, for that matter, are divided by other musical material which is also metrically variable.

The second tendency resulted in one of the most

important techniques of twentieth-century music: the use of ostinato. (Cf. example 13.) Prokofiev, in his Visions Fugitives, uses pitch patterns to stabilize an undifferentiated movement in eighth-notes as movement within 2/4 meter against the melody in 3/4 meter (the nominal meter). The metrically stable quality of an ostinato is opposite to the metric instability inherent in the use of variable meters. Maintaining a sense of regular meter by means of the repetition of motives and/or phrases, an ostinato forms a stable and periodic momentum, forming a kind of metric support regardless of the greater rhythm environment.

Different kinds of variability and the ostinato interact in the music of Scriabin, Stravinsky, Prokofiev, and Shostakovich. Such metric organization was also fertilized by the rhythmic practices occurring within various other national traditions. Thus, in example 14a, the typically romantic polyrhythm, including an ostinato figuration in 5/16 meter (whose national specificity is derived from a combination of a dactylic termination and descending melody) contains a weakly expressed metric irregularity that is characteristic of the music of Scriabin. In example 14b we see Stravinsky's typical polymetry, which arises out of a variable accompaniment figure (3+4+3) combined with a melody which is somewhat unstable within the fixed meter. (There is a hidden melodic-rhythmic similarity between the tones A-A-D-G-F-sharp in the
first bar and D-D-E-G-F-sharp in the second and third bars, which gives to the latter succession a sense of starting too soon but nevertheless on a strong beat. The apparently ingenious piece For Five Fingers is full of clever rhythmic ‘adventures’, lyrical variations, and playful metric variability.

In the music of these composers are to be found long passages in meters resulting from metric modulation, metrical shifts, and, in particular, polymetry; monometric periodicity was abandoned. In example 15a the simple, stable structure of the variable meter (which accumulates into eight-beat phrases) has an even bar-grouping not only because of the two-beat rhythm of the chords but also as a result of the syntactic structure of the melody. In example 15b the melodic pattern is susceptible of at least three rhythmic groupings. Upon its canonic appearance, however, the 2/4 meter comes to the foreground, in strong polyrhythmic contrast to the heavy three-beat accompaniment. However, the decisive factor in the modification of temporal organization - which is most vividly expressed in the music of Stravinsky - was the loss of main principle of bar meter: the domination of fixed metric functions and the subordination of variable metric functions. The stability of unnotated variable metric structures, the hidden and the apparent variants of pulsation, the constant restructurings of momentum and, hence, the narrowing of the durational range of metric action, and the metric mobility: all of this testifies to the principle of total variability of metric functions. In a fragment from The Soldier’s Tale (cf. example 16), Stravinsky uses several metric ‘tricks’, of which the change of meter (2/4, 3/8, 2/4) is not the most interesting by far. There are evident shifts in the double bass ostinato figuration and in the light-hearted violin part, both having a veiled strong beat. (Throughout the entire first scene the first beats of the violin part are veiled, that is, its first beats are de-emphasized.) But the metric result can not be understood in only one manner. A schematic description of example 16 is only one of many possible descriptions; in particular, bars 3-4 of the example are perceived retrospectively as a large variable 3/4 bar. The music of the ‘soldier’s violin’ has several different kinds of movement which are represented in different metric structures. The various accents given to the theme subordinate each other successively, and the metric structure vibrates constantly, balancing between the fixed meter, its shift, polymetry, and metric modulations. Metric development has the character of a game (in particular, the device of unexpected entries); this is one of the main expressive means in The Soldier’s Tale and in the music of Stravinsky in general.
Example 15a
Shostakovich, Symphony No. 1, II.

Example 15b
Prokofiev, Third Piano Concerto, III.
The 'hidden meters' within the classical-romantic bar system, which represent unstable and subordinate rhythms, became, in the music of the first half of the twentieth century, visible and stable (in those styles in which meter was still used). Thus, the abandonment of a nearly exclusive use of standard meters resulted from discovering the bar's own inner properties. The crisis of bar meter, manifesting itself in total variability, paved the way to the creation of metric organization without bars in music of the second half of the twentieth century.

It goes without saying that the phenomena described above were not contained within national borders; they characterize the evolution of musical language and the means of its organization in twentieth century music in general. The special, national features of Russian music have merely intensified their manifestation.

(Translation Eugene Sigaloff and Susanna Veerman)

Example 16
Stravinsky, The Soldier's Tale.

\[ \frac{2}{4} \]
the metre of the composition

\[ \rightarrow \frac{3}{4} \]
a change of metre

\[ \rightarrow \]
the amount of shift in relation to the barline

\[ = \]
tendency towards metric variability

\[ \frac{6}{8} \]
polyrhythm

Key to symbols