

Alternative Bar Structures in Bartók's Music

János KÁRPÁTI

Budapest

E-mail: h11103kar@helka.iif.hu

(Received: 1 February 2006; accepted: 25 March 2006)

Abstract: Already in some of Bartók's juvenile compositions, a definite attraction is manifested for the irregular rhythmic. This is an early appearance of *additive* metrics, opposed to the conventional *divisive* one. An extremely rich selection for irregular meters was offered to Bartók by Rumanian folk song material, particularly in the "colindas". Bartók used the term "Bulgarian rhythm", although knew well this was not an exclusively Bulgarian peculiarity. The phenomenon shows clearly the existing form of the additive-subtractive metrics, because the quantitatively various bar structures alternate by augmenting or diminishing by one quaver (as the common denominator), a kind of "mistuning in the time". This thinking has been well documented in a series of various examples, but the *Sonata for two pianos and percussion* (1937) provides an extremely rich selection of rhythm combination, in which the inner overstructuring of the bar, resp. the mistuning of the meter plays the principal role.

Keywords: Béla Bartók, divisive and additive metrics, Bulgarian rhythm

In the Bartók literature there are relatively few works dealing with his very exciting rhythm, at least not in a profound way. Our excellent teacher, professor Lajos Bárdos, from whom we learned very much about analytical thinking, promised in his study *Folk Rhythms in Bartók's Music* more than he realized, because he gave a dictionary-type list of the simpler patterns, but did not go in depth into treating the irregular and asymmetrical elements.¹ However, in this regard a lecture by János Breuer given in honour of Lajos Bárdos with the title *Colinda Rhythm in the Music of Bartók* can be considered a

¹ *Harminc írás*. Budapest: Zeneműkiadó, 1969, pp. 9–40.

pioneering study which directed our attention to Rumanian origin of the frequently and surprisingly metric changes of Bartók's music.² Another important contribution to our understanding of Bartókian rhythm was László Somfai's study entitled *Analytical Notes on the Piano Year 1926*, particularly chapter VI about "metre-breaking rhythmical practice".³

In one of my previous studies I attempted to analyze Bartók's melody, chords, counterpoint and tonal relations via a dualism of perfect and mistuned structures.⁴ There I raised the idea of "rhythmic mistuning". At first sight the word mistuning seems inappropriate to characterize a process in time. Nevertheless I think it could be appropriate with certain abstraction, since mistuning – in the last analysis – is simply the $\pm$ modification of a given perfect structure by the smallest unit of the system. Accordingly, if the structure moves in "musical space", the smallest unit is the semitone, and if it moves in "musical time", the smallest unit is the denominator of the fraction marking the metre (usually the quaver or semiquaver). The present paper aims to give a more detailed analysis of this idea.

First of all it seems necessary to clarify our terminology. In everyday practice there frequently occurs a mixed, sometimes inappropriate use of the words rhythm and metre. Relying on lexical definition, I am recommending some simpler but still appropriate formulations as follows.

The rhythm is the frequency and the proportion to each other in time of the notes. The metre is simply the organized grouping of the rhythm by accentuation, prosody or other factors. Although Bartók mostly uses the expression "Bulgarian rhythm", when he marks the bar structure at the beginning of such a piece with fractions (e.g. $2+2+3/8$), he in fact defines the grouping of the notes, that is the metre. Our suspicion regarding the incorrectness of Bartók's wording is confirmed by Timothy Rice, the eminent expert on Bulgarian folk music, who, in his lecture given at the Bartók symposium held in Los Angeles in 1995, proposed putting "Bulgarian metre" in place of "Bulgarian rhythm".⁵

Another question of terminology concerns the inner structure of the metres (bars) and how they are connected. In European art music – let us say from the mensural thinking of the *Ars nova* onwards – it was the division of identical time units which dominated. This divisional principle and thinking still dominated even when unusual kinds of bar cropped up, e.g. $5/4$ in Chopin and Tchaikow-

² *Studia Musicologica* 17 (1975), pp. 39–58.

³ *Tízennyolc Bartók-tanulmány*. Budapest: Zeneműkiadó, 1981, pp. 171–176.

⁴ "Perfect and mistuned structures in Bartók's music", *Studia Musicologica* 36 (1995), pp. 365–380.

⁵ "Béla Bartók and Bulgarian Rhythm", in *Bartók Perspectives*. London–New York, Oxford Univ. Press, 2000, pp. 196–212. This distinction by Rice is based on the study Mieczysław Kolinsky: "A Cross-cultural Approach to Metrorhythmic Patterns", *Ethnomusicology* 17 (1973), pp. 494–506.

sky.⁶ In these cases the 5/4 cannot be divided, as the triplet, quintuplet or septuplet falls on a single time unit. We find such a typical divisional case in Bartók too, e.g. in the 1st movement of the *2nd Sonata for violin and piano* (Example 1).



Example 1

Accordingly divisional metre means that there are identical time units in use, independently of whether their inner division is duple or not. And it has to be added that divisional metre can be interpreted in principle inversely, i.e. in *multiplicative* form; this means that for example 6/8, 9/8 or 12/8 are simply the double, triple or quadruple product of 3/8.

A principle opposed to *divisional* metre is another musical practice – mainly in traditional and modern music, *additive* metre. This is already present when the inner structure of a 5/4 or 5/8 metre is divided unequivocally into 2+3 or 3+2 units. This is the basic case of additive metre, already known in the ancient Greek theory as *hemiolia*, i.e. “one and a half” (in the Middle Ages sesquialtera), since to the basic unit half of it is added. It was practiced already in divisional metre as *hemiola*, meaning that a triple divided metre (e.g. 3/4) changes to double (6/8). In this case the metric pulse does not change ($3 \times 2/8 = 2 \times 3/8$). The change of the inner structure of the bar refreshes the metre and the musical process becomes more lively and interesting. It is a frequent phenomenon in the Italian, Spanish and Arabic folk music of the Mediterranean Region, as I found in my earlier investigations, and it occurs also in Italian art music; e.g. Monteverdi uses the anacreontic metre in this hemiolic way in scenes in *Orfeo*, and *Incoronazione di Poppea*, alternating 6/8 and 3/4: “Vi ricord[a] o bosch[i] ombrosi” or “Questa vit[a] è dolce troppo”.⁷ Much harder in effect is the hemiola in the Scherzo of Beethoven’s *Symphony III*, when the fast 3/4 metre changes only for four bars to Alla breve 4/4. This is a real additive pro-

⁶ Cf. Bartók’s lecture “Az úgynevezett bolgár ritmus” held in Budapest April 6, 1938. English version: “The So-called Bulgarian Rhythm”, in *Béla Bartók Essays*. Selected and edited by Benjamin Suchoff. London: Faber & Faber, 1976, pp. 40–49.

⁷ “Mélodie, vers et structure strophique dans la musique berbère (imazighen) du Maroc Central”, *Studia Musicologica* 1 (1961), pp. 451–473.

cedure, in that different times (metres) are placed next to each other. We should remark here too that the addition can be interpreted as its inversion, i.e. subtraction. (e.g. when 2 follows 3, it means a unit of 3 was taken off.)

In Bartók's two juvenile compositions, in the Scherzo or Scherzando of the *String quartet F major* (1898) and *Piano quintet* (1903–04) a definite attraction is manifested for the irregular rhythm. In both movements, marked 3/4, the rhythm of the theme consists of three 2/4 (dotted crotchet + quaver) and one 3/4, i.e. in three bars the actual structure is 2+2+2+3/4, and all this in the main thematic material, dominating the entire movement. In this period Bartók did not arrive at notating this metric as it really is, therefore he chose pure 3/4 with hemiola insertions. But we can reveal its inner connection with the 5th *Bulgarian dance* of *Mikrokosmos*.

But we must not make such a big jump! In his creative period between 1908 and 1911, Bartók handles the bar structures in certain pieces for piano with surprising freedom. It is true, however, that the frequent changes – 3/4–1/8–5/8–7/8–3/4–4/4 – in the second of the *Two elegies* (Op. 8b) are very well explained by the direction for the interpreter *Molto adagio, sempre rubato (quasi improvisando)*, and refers to the fact that the slow tempo and *rubato* character itself involves additive metre.⁸ Furthermore, along with the *rubato* style goes a complete absence of barlines, which if present, are only helping to orientate the performer. We find a similar phenomenon in piece XII of the *Fourteen Bagatelles* (op. 8), but in contrast, in piece XIV (“Ma mie qui danse”) the 3/8 Valse metre is many times broken by hemiolas, i.e. by 2/8 units.

We find real additive metre in piece VII of *Esquisses* (op. 9b, 1908–10), where 9/8–6/8–6+2/8–5/8–7/8 marked bars alternate with the tempo *Poco lento*, testifying that the melody initially presented in 9/8 becomes shorter in the process by one/two/three quavers. The 4/4–2/4–5/4 changes of bar in the second *Burlesque* are part of Bartók's portrayal of the character's staggering (“a bit tipsy”).

The above mentioned pieces show us nothing about the change Bartók's creative thinking underwent in precisely these years! At this period he began systematic folk song collecting first in Békés and Tolna counties (1906), he discovered Csík in Transylvania (1907), then as a result he extended his collecting area beyond the Hungarian population to Slovaks in the Uplands (Nyitra, Hont, Gömör) and Rumanians in Transylvania (Bihar, Hunyad, Maros-Torda, 1908–1912). At this time folk music was not so organically incorporated into Bartók's musical language as later on, but his method of folk music arrangement was shaping in the two Hungarian and two Slovak books

⁸ It refers to the original meaning of “*rubato*” as “robbed” rhythmic values.

of *For Children*. The greater part of the Hungarian and Slovak material did not provide stimulating models for Bartók and irregular rhythms, he had more surprising encounters with folk songs from the Sekler country – primarily Csík county in Transylvania – collected by him personally and by some of his colleagues. He himself in Kilyénfalva found a song in *giusto tempo*, in July 1907, whose notation in 8/8 conceals a 2+3+3/8 structure (*Example 2c*). In the same region also Kodály collected songs with very similar rhythmic structure in 1910 (*Examples 2a, b*), and Antal Molnár discovered in 1911 the frequently cited song *Az én lovam Szajkó* (*Example 2d*) with 5+3/8 metre.⁹

The image displays four musical examples, labeled a) through d), each showing a short melodic phrase in 8/8 time. Example a) is marked 'Tempo giusto' and shows a phrase with a 2+3+3/8 structure. Example b) is marked 'Poco rubato, ♩ = cca 84-88' and shows a phrase with a similar structure. Example c) is marked '2. Sza-bó nem jól szab-ta, Var-ró sém jól varr-ta,' and shows a phrase with a similar structure. Example d) is marked 'a) 1. Az én lo-vam Szaj-kó, Magam pe-dig Jan-kó,' and shows a phrase with a similar structure. Each example includes a staff with a treble clef and a key signature of one flat (B-flat).

Examples 2a–d

Bartók knew that this kind of metre is very rare in Hungarian folk song material, and just for this reason was very happy to report his discovery to his wife, Márta Ziegler in a letter addressed to her at Vésztfő in Autumn 1918:

For the moment being – pour dégourdir mes membres musicaux – I have harmonized 7 songs from the ones collected in the summer, including the famous Borbála Angoli of Róza Ökrös. I recommend you listen to it, because to hear something like this in Hungarian, what is more in the middle of the great Plain and furthermore in 7/8 time, is truly sensational.¹⁰

So was born the central piece (no. 6, *Ballade*) of *Fifteen Hungarian peasant songs* for piano, in which Bartók substitutes the strophice chain of *Borbála Angoli's* sad story by a chain of variations; and in the middle the irregular metre is “smoothed out” to 3/2 and 6/8.

But an extremely rich selection of irregular metres was provided to Bartók by the Rumanian folk song material, particularly in the “colindas”. His first Rumanian collection was published as early as 1913,¹¹ and it did not depend on

⁹ Cf. *Hungarian Folk Songs: Complete Collection Vol. I*, compiled by Béla Bartók. Edited by Sándor Kovács and Ferenc Sebő. Budapest: Akadémiai Kiadó, 1993. Nos. AI 198 and 199.

¹⁰ Letter to Márta Ziegler in *Bartók Béla családi levelei*. Ed. Béla Bartók jr. Budapest: Zeneműkiadó, 1981, no. 387.

¹¹ *Chansons populaires roumaines du département Bihar (Hongrie)*. București, 1913.

him that his great colinda collection – although the manuscript was complete already in 1926 – reached publication only in 1935.¹² In the introduction of this volume, which contains 454 melodies, the peculiar metre of the colindas is characterized by these words:

Special mention is required for those rhythmic patterns which show a division into sixteenth notes, and which are called “Bulgarian” because they often appear in Bulgarian folk music of every kind... It seems desirable to investigate the question: In these melodies, are we not dealing with merely accidental shortenings or lengthenings of note values on the part of the performer? Since this kind of rhythm is sung throughout the entire region of Hunedoara and, occasionally, also in Mureş-Turda and Bihor, we must say ‘no’ to the above question.¹³

Examining the colindas – although Bartók does not touch upon this – two types are to be observed. One can be characterized by a rather irregular alternation of the bar structures, e.g. 2/4–3/8–2/4–3/4 etc. This is the type cited by János Breuer, and referred to in movement III of the *Sonata for piano* (1926).¹⁴ The Hungarian folksong that lies behind the composition is initially presented in a 3/8 “mistuned” version, and only bar 227 introduces the “original” 2/4 form. It is very characteristic of Bartók that in his first draft he did not use any metric marking¹⁵ (*Example 3*).



Example 3

This phenomenon shows clearly the existing form of the additive-subtractive metre, because the quantitatively varied bar structures alternate by augmenting or diminishing by one quaver (as the common denominator). This was emphasized also by Bartók in an article written on Rumanian folk music for a Swiss newspaper:

¹² *Melodien der rumänischen Colinde (Weihnachtslieder)*. Wien: Universal, 1935.

¹³ *Rumanian Folk Music by Béla Bartók, Volume Four: Carols and Christmas Songs (Colinde)*. Ed. by Benjamin Suchoff. The Hague: Martinus Nijhoff, 1975, p. 31.

¹⁴ See note 2.

¹⁵ *Bartók's Workshop: Documents of the Compositional Process*. Exhibition and text by László Somfai. Budapest: MTA Zenetudományi Intézet, 1995, p. 7.

Noteworthy in this particular instance is the continual change of the measure. We must bear in mind that these and similar “complex” melodies are performed by illiterate people with the greatest aplomb and in the most natural fashion. This is the most convincing proof of the extent to which certain theoreticians err when they hold that repeated change of time denotes an unnatural process.¹⁶

Similarly to the booklets *For Children*, two series of simple arrangements for piano were composed by Bartók from the colindas in 1915, before the great scholarly collection was published.¹⁷ We quote the beginning of no. 4 from the first series, identifiable with No. 10b (D-oi roagă, să roagă) of the collection. This is a good example of the first procedure, i.e. irregular alternation of bar structures (*Example 4*).



Example 4

In the other basic type the prescribed metric structure remains the same during the entire song, but this structure shows an inner asymmetric articulation, e.g. 2+3+3/8. As this articulation falls upon identical time units, this belongs to the case of divisional metre, it should be added, however, this is a particular case of *divisional* metre, because the basic bar structure – according to the asymmetric division – has been created by the additive principle. In other words: this type of metric structure is a special combination of divisional and additive thinking. The basis of the piano colinda no. I:7 is no. 27 of the scholarly collection (La lină fântână), but there are a further seventeen songs listed by Bartók in the introduction to characterize the type (*Example 5*).

This 2+3+3/8 division in principle stands close to the metric division of the 6th Bulgarian dance of *Mikrokosmos* (3+3+2/8), since the sum value of the quavers is 8, accordingly it “could be” 4/4, but in the theoretical part of the introduction Bartók speaks about an augmentation by semiquavers. He lists a number of examples, but we quote only two. No. 60 with 10/16 prescription

¹⁶ “Rumänische Volksmusik”, *Schweizerische Sängerschaft* September 1, 1933. “Rumanian Folk Music”, in *Béla Bartók Essays*. Selected and edited by Benjamin Suchoff. London: Faber & Faber, 1976, pp. 119–127.

¹⁷ There are two excellent studies dealing with this topic. David Yeomans: “Background and Analysis of Bartók’s Rumanian Christmas Carols for Piano (1915)”, in *Bartók Perspectives*. London–New York: Oxford University Press, 2000, pp. 185–195; Ferenc László: “Bartók és a román kolindák”, *Magyar Zene* XLIII (2005), pp. 259–272.



Example 5

and consists of quavers and pointed quavers (2+3+3+2/16). This metre structure would be perceived by an unpracticed listener as simply 4/8 or 6/8. The metric prescription of no. 11 is given by Bartók as 15/16, and with dotted lines denotes the inner structure of the bars: 5+5+5/16. It is comprehensible that, characterizing the “Bulgarian rhythm” discovered by him, he speaks about an augmentation of time values by semiquavers.

As we mentioned earlier, in 1938 Bartók gave a lecture about the *So-called Bulgarian Rhythm*. From this we learn that at the time when he wrote his study about the colindas – between 1924 and 1926 – he already knew the study by Dobri Christov entitled *Bases rythmiques de la musique populaire bulgare*, published in the 37th volume of the ethnographic series of the Bulgarian Academy of Sciences, demonstrating melodies with 5/16, 7/16, triple divided 8/16.¹⁸ But Bartók had become acquainted with this phenomenon even earlier, during his field work collecting colindas between 1912–1918, and in a further part of the lecture he gives a more detailed account of it:

When I first saw these unfamiliar rhythms, in which such fine differences are decisive, I could hardly imagine that they really existed. But then I seemed to remember that in my own collection of Rumanian material I had come across similar phenomena, but at that time had not dared – if I might put it that way – to take note of them. Among my old phonograph notations there were dance melodies which, with a perfectly clear conscience, I had noted down in 4/4, in steady quarter-notes (or perhaps not with a perfectly clear conscience, because I had written on my notations: “the ends of the bars drawn out in gipsy fashion”). ... Since then I have thoroughly revised my phonograph notations, and it turns out that about five per cent of the Rumanian material is also in so-called Bulgarian rhythm. ... In the Hungarian material this kind of rhythm can only be found in traces, and at present nothing can be inferred from them. ... There is no trace of the rhythm in Serbo-Croate publications, but this again does not mean it is non-existent there. I believe that it must be present there, too, but that nobody among Serbo-Croate collectors has noticed it. An important point is that the so-called Bulgarian rhythm obviously exists in part of the folk music of the Turkish peoples. In one of his publications, Uspensky (and Be-laiev) gives Turkestan (Turkmenian) folk music, in which there are a con-

¹⁸ See note no. 6, page 43.

siderable number of melodies notated in 5/8, with eighths of about M. M. = 300. I, too, encountered rhythms of this kind in Asia Minor, although admittedly only in dance or instrumental music which was probably not of ancient Turkish but of foreign origin ...

And here Bartók quotes a music example as follows¹⁹ (Example 6):



Example 6

Accordingly, Bartók, although he used the term “Bulgarian”, well knew this was not an exclusively Bulgarian phenomenon, and in this he preceded by thirteen years Constantin Brăiloiu who, in the December 1951 issue of the *Revue de musicologie*, recommended to use instead of “Bulgarian” the Turkish adjective “aksak” (lame). The eminent Rumanian ethnomusicologist – by the way a one-time esteemed colleague and good friend of Bartók – wanted to express – without referring to any nation – the asymmetry of this metre. By this Bartók’s discovery, that this metric phenomenon was spread over the whole of the Balkans and south-west Asia, obtained a subsequent verification.²⁰

Besides the Rumanian folk material, Bartók obtained special rhythmic impulses from North-African Arab folk music too. He travelled in 1913 to Algeria, and in the company of his first wife he recorded vocal and instrumental pieces with his Edison-type phonograph. In his study, first in Hungarian (1917), then in German (1920), Bartók writes about Arab folk music:

The high-level development of the rhythm is in contradistinction with the primitivism of the range and form. The syncopations met in melodies with strict rhythm must be mentioned as the chief characteristic differing from Eastern European folk music. These syncopations not only occur in the form customary with us, but in a manner utterly unfamiliar, where a short *un-accented* value is tied to a long accented one... The intricacy of the melodic rhythm is further complicated by the accompanying rhythm of the percussion instruments... Occasionally the accompaniment is independent to the extent that it nearly takes on a self-contained life alongside the melody. In this case – in point of fact met exceptionally – any connection of the melody and its accompaniment is lacking... And, finally, curious polyrhythms come into

¹⁹ See note no. 6, page 47.

²⁰ It is surprising that Timothy Rice, who published an excellent study about the topic Bartók and the Bulgarian rhythm (see note no. 5), is ignorant of Brăiloiu’s communication and the internationally accepted term “aksak”.

being when melodic and accompanying motives, although of identical length but fully divergent as far as rhythm, are united.²¹

From the typical rhythm patterns of the Biskra collection, two play an important role in Bartók: the first is a classical hemiola, and the second a $3+3+2/8$ divided “Bulgarian rhythm” (Example 7).



Example 7

This second type is many times incorporated in Bartók into high level art music forms. László Somfai drew attention to the Coda of the *Piano sonata*'s first movement.²² In fact, the otherwise 2/4 metric percussive effects become 3/8, and even this is broken by taking off one quaver from every third unit ($2/4 - 3/8 - 3/8 - 3+3+2/8$). A similar effect is manifested in the Finale movement of the 4th *String quartet*. Here the entry of the theme is prepared by a monotonous drumming of the viola, but the quavers are accentuated in a $3 + 3 + 2$ proportion by sforzatos and broken chords of the violoncello, creating a special polymetre between the theme and the accompaniment (Example 8).



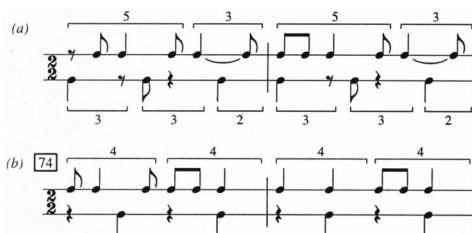
Example 8

A very similar occurrence is found in the version for two pianos of “Ostinato”, piece no. 146 of *Mikrokosmos*. In this piece the second piano has the accents in order to produce a $3+3+2/8$ pulsation. A particular metric structure characterizes the descending scale theme of the final movement of *Music for strings, percussion and celesta*. The prescribed 2/2 does not express the real inner structure of the theme, because the quavers are in a $5+3$ asymmetric

²¹ “A Biskra-vidéki arabok népzeneje”. *Szimfónia* I, September 1917, pp. 308–323. New revised edition: *Bartók Béla írásai 3: Írások a népzénéről és a népzeneekutatásról*. Ed. by Vera Lampert. Budapest: Editio Musica, 1999, pp. 87–128. In English: “Arab Folk Music from the Biskra District” (translated by Benjamin Suchoff), in *Béla Bartók Studies in Ethnomusicology*. Lincoln–London, 1997, pp. 29–76.

²² See note no. 3.

articulation, counterpointed by the accompaniment's chords in a 3+3+2 articulation (*Example 9a*). In the major part of the performances this very fine rhythmic effect does not come out, and the bars are accentuated simply by halving. That this is not correct is verified by the development of the theme, because from bar 74 Bartók himself changes the accentuation (*Example 9b*).



Examples 9a–b

The above quoted examples showed that additive metre and combined additive-divisional metre are not connected only with folk song arrangements. The fact of how sensitive a point this was in Bartók's creative thinking is extremely well verified by *Etude III* (op. 18), composed at the same time as *Angoli Borbála*. Although it begins with rubato arpeggios free from a metric point of view, in the *Tempo giusto* section 6/8–7/8–6/8–10/16–9/16–11/16 bars succeed each other, providing an absolute extreme case of additive metre. The rhythmic mistuning technique can here well be observed, since the quavers and semiquavers occur in one-by-one augmenting groups (*Example 10*).



Example 10

The *Etudes* belong among Bartók's most difficult compositions – equally difficult to play and to understand –, with wide intervallic leaps, tonally tensed chord cumulations and dissonantly mistuned structures. It is easily understandable that the rhythm and metre is similarly handled. The two *Sonatas for violin and piano* belong to the same stylistic area. An example of pure divisional polymetric has been quoted above (see Example 1). Here a very characteristic additive structure is quoted from the *2nd Sonata* (*Example 11*).

In some cases additive thinking is manifested in a concealed form. In movement IV of the *4th String quartet* we find a place where inside the un-

42 Tenor-Solo *Agitato, poco rubato* $\text{♩} = 150$

48 Ké - ves é - des a - pánk, Ránk te so - se

52 cé - lozz! Mert té - ged - mi - tű - zünk A - szar - - - vunk he -
 cresc. sempre più mosso
 gyé - re És úgy ha - ji - gá - - lunk Té - - ged rét - ről rét - re,

Example 13

proved by his lectures and writings. In his already quoted lecture *The So-called Bulgarian Rhythm* he comments on the 7/8 metre of a Hungarian song [Angoli Borbála] and a Rumanian colinda [D-oi roagă] with the words:

In both melodies we feel that the 7/8 metre originated in a 3×2 metre in eighth-notes: in the first example the fourth eighth-note has expanded into a quarter-note; on the second example, the sixth one.

And Bartók similarly interprets the characteristic $2+2+3/16$ rhythm of the Bulgarian *Ruchenitza*.

The superficial listener will evaluate this rhythm either as 3/8 or as 2/4. If we derive it from 3/8, then we must establish an augmentation by a sixteenth-note; if from 2/4, then a diminution by the same note value. I favour the former explanation, and as the Bulgarians' own rhythmic definition suggests, they too seem to be of this opinion. My feeling is that this extension of the note value is no other than the translation of a dynamic stress into terms of duration.²³

This thinking has been well documented in our examples so far quoted, but the *Sonata for two pianos and percussion* (1937) provides an extremely rich selection of rhythm combination, in which the internal through-structuring of the bar, and the mistuning of the metre plays the principal role (Example 14).

The slow introduction has an unequivocally 9/8 metre (a). At the end of the introduction, the listener witnesses an inner transformation of the 9/8 metre (b), and when the *Allegro molto* starts, maintaining the numerator 9, the inner

a) $\frac{9}{8}$

b) $\frac{9}{8}$

c) $\frac{9}{8}$

d) $\frac{9}{8}$

Example 14

²³ See note no. 6, page 47.

structure becomes $1+2+2+2+2/8$ which, if we consider the real rhythmic pattern of the theme, as a matter of fact is simply $1/8+4/4$. This means that the theme in a simple metre becomes special and exciting by means of a quaver retardation.²⁴ But the excitement is also increased by the metre of the timpani, which plays the inversion of the pianos' rhythm: $4/4+1/8$ (c). The second theme of the movement shows another Bulgar-like metre structure, $4+2+3/8$ (d), which occurs – among other places – in the Scherzo of the *5th String quartet* and the *1st Bulgarian dance* of *Mikrokosmos*. The sum of the numerator remains 9 here too, but behind this real structure a 4/4 pattern is concealed, in which one crotchet is stretched by a quaver – not always on the same place.

When Bartók gave a lecture series at Harvard University in 1943, he had the opportunity to look back over his whole career and to give a very clear explanation of his compositional methods and ideas. Because of his worsening health he could only give three of the projected eight lectures, and the fourth one – exactly about “rhythm” – only remained in an English draft.

... We may have – though not frequently – $5/8$ time or $7/8$ time in our melody. The difference between them and the regular $2/4$ is not essential; it is rather a derivative difference. In fact, $5/8$ can be explained as a doubling of one of the eighths in a $2/4$ bar, and $7/8$ as a doubling of one of the eighths in a $3/4$ bar. *These strange bars attracted me to a high degree, and their influence can be discovered in many places in my original works* [italics mine]. As for the strangeness of these bars, it is as nothing, however, in comparison with the rhythm patterns I am going to describe to you in the following. They belong to the group which we call “Bulgarian” rhythm” formations.²⁵
[– Here the draft breaks off.]

These last lectures of Bartók's life became publicly known two decades after his death.²⁶ In these some of his earlier ideas presented or only touched were repeated, enriched then by further, very explanations. At the same time, some questions concerning his creative method were raised for the first time, and answered in a decisive way. One answer was e.g. the “polymodal chromaticism”, contradicting the opinions of some critics, and verifying or modifying, those of others. Similarly, his above quoted statement about rhythm can be considered decisive, because, although the words about the partial stretching of the bar structures are repetitions, his declaration of his personal attraction verifies the theory of “mistuning”.

²⁴ A similar procedure is given 25 years earlier in the *Allegro barbaro*, in which the theme is delayed by a crotchet over the pulsing accompaniment.

²⁵ “Harvard Lectures”, in *Béla Bartók Essays*. Selected and edited by Benjamin Suchoff. London: Faber & Faber, 1976, pp. 393–398.

²⁶ John Vinton: “Bartók on his own Music”, *Journal of the American Musicological Society* 19 (1966), pp. 232–243.