AN ANALYSIS OF THE GENESIS OF MOTIVE, RHYTHM, AND PITCH IN THE FIRST MOVEMENT OF THE *SONATA FOR TWO PIANOS AND PERCUSSION* BY BÉLA BARTÓK

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This dissertation presents evidence that Béla Bartók created his masterwork, the *Sonata for Two Pianos and Percussion* (1937), in a very complex period of his life. Since it was a mature piece, Bartók utilized typically "Bartókian" compositional techniques and styles. His ethnomusicological studies were also influential factors in the creation of the *Sonata for Two Pianos and Percussion.*

We can be witness to how different the first draft was to the published version; the minor and major changes are revealed in the draft study of the *Sonata for Two Pianos and Percussion* 's first movement. These changes allow today's musicians to reconstruct the compositional process. The first movement introduces some interesting uses of sonata form, to be explored in more detail in the analysis. Starting with linear analysis, the basic motives and rhythmic patterns are discussed and supported with Bartók's own explanations.

The conclusion of this study has important ramifications for performance: it eases up the pressure on the performers, since problematic passages are analyzed and explained - preparing the players' mentally for the performance. This is music which is hard to play and difficult to analyze. The analysis, combining the results of both theoretical and musicological studies, is intended to help both analysts and performers understand the genesis of the piece and, for performers, to execute the music in the best possible manner.

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NOTE TO THE READER

All the musical examples are located at the end of the dissertation in three parts (APPENDIX A, B, and C). They refer back to Chapters 2, 3, and 4. The examples belonging to Chapter 2, include two parts: **A** and **B**. **A** is an excerpt from the manuscript, where I inserted the measure numbers and the following numeric symbols: **1. 2. 3. 4. 5. 6.** etc. Other than that the manuscript is copied from the original without any change. **B** is the excerpt from the published version.

CHAPTER 1

INTRODUCTION

Historical Background

During the 1930's, the 50-year-old Bartók was already a well known and successful composer, pianist, and most of all, a world renowned ethnomusicologist. He left behind a great amount of correspondence giving us a quite detailed account of what happened to him during that time period. His correspondence with scholars and friends in Europe and his personal letters written to his family shed light on his actions from different perspectives. His book on Hungarian folk music was published in England in 1931 (it appeared in Hungary in 1924). In 1934 he gave up piano teaching at the Music Academy in Budapest; he made this decision in order to devote more time to research in ethnomusicology. He was transferred to the Academy's folk-music section as head of the newly organized publication subcommittee. Beginning in September of 1934, Bartók worked every other day on transcriptions of phonograph recordings or editing the notations prepared by his assistants. The Magyar Tudományos Akadémia (Hungarian Academy of Science) commissioned him to prepare the publication of the Hungarian folk song collection planned since 1913. This collection would be the fruit of a thirty year collaboration with Zoltán Kodály and other investigators, though Bartók practically ceased collecting music during the 1920's. When he reinitiated his ethnomusicological work, Bartók looked through the new collection of folk songs made by Zoltán Kodály and other folk music collectors since the 1920's. In the 1930's he happily devoted his energies to the systematization of this huge collection of folk music and completed the missing transcriptions from recorded

melodies to written material. In one interview with Júlia Szegö, Bartók said that one complicated four-line tune with grace notes took him about six to seven hours to write down correctly.[1] The quantity of Hungarian folk tunes was enormous (approximately 12,000 tunes). He predicted in an interview on 13 January, 1936 (almost two years before the première of the *Sonata for Two Pianos and Percussion*), that to finish the work on these songs would take him about four years.[2]

Between 1930 and 1934 he did not perform at all in Hungary; in the following two years (1934-36) his repertoire only consisted of other composer's works.[3] Until 1940 (when he emigrated to America) he mainly worked in the building of the Hungarian Academy of Science and interrupted his research with concert tours and lectures in Europe, where he performed his own compositions, including the *Sonata for Two Pianos and Percussion*. His flexible schedule at the Hungarian Academy of Science provided the freedom to work with not only Hungarian, but other nations' folk music as well. For instance, he developed his theory that Rumanian folk music is somehow influenced by Bulgarian and Yugoslavian and Turkish folk music sources. He discovered that the so-called Bulgarian rhythm exists in a certain percentage of Rumanian folk songs. Their asymmetrical rhythmic patterns derived from the symmetrical patterns (e.g. 2/4 and 7/16 relations).

> The existence of this kind of rhythm in Rumanian folk music is an extremely important fact. Except for the Bulgarian territory, they are rarely found elsewhere. The Turks of Asia Minor, and especially of Turkestan, have such rhythms in their music. . .[4]

In the letter of 27 October, 1934 Bartók gave substance to his suspicion:

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[1]András Wilheim, ed., *Beszélgetések Bartókkal* (Interviews with Bartók) (Budapest: Kijárat Kiadó, 2000), 171.

[2]Ibid., p. 155.

[3]Ferenc Bónis, ed., Igy láttuk Bartókot (As we saw Bartók) (Budapest: Püski Kiadó, 1995), 196.

[4]Béla Bartók: *Rumanian Folk Music* vol. iv, ed., Benjamin Suchoff, trans. E.C. Teodorescu. (The Hague: Martinus Nijhoff, 1975), 31-32.

> For it does occur with the Rumanians, though only occasionally, and there is no more than a hint of it in the songs of the Hungarians of Transylvania. I suspect this to be a common characteristic of South-East Europe, and not peculiar to Bulgaria; it is merely - or so it would seem - that the Bulgarians have preserved it in the most intact form.[5]

The composer used this feature in his newly completed *String Quartet No. 5* in the third, "Scherzo" movement: 'The use of the word "Bulgarese" is somewhat misleading, and refers exclusively to the metrical character of the movement, since the melodic world displays principally Hungarian, and to a lesser extent, Rumanian folk elements'.[6] Bartók was quite surprised when on 5 June, 1935 a telegram arrived from the Library of Congress, Washington, D.C., with a proposal for a string quartet. Two months later he began to compose the *String Quartet No. 5*, whose commission was sponsored by the Elizabeth Sprague Coolidge Foundation of Washington, D.C. Another important stylistic element, Bulgarian rhythm, appeared for the first time in the *String Quartet No. 5*. Bartók even titled the Scherzo movement "Alla Bulgarese."[7] In the first movement of the *Sonata for Two Pianos and Percussion*, the second theme also has similar characteristics.

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[5]János Demény, ed., *Bartók Béla levelei* (Béla Bartók Letters) (Budapest: Corvina Press, 1971), 233.

[6]János Kárpáti, *Bartók's Chamber Music* (Budapest: Zenemükiadó, 1976), 375.

[7]Beside rhythmic ostinato, Bartók's other novelty is the use of the Bulgarian rhythm. First he collected Bulgarian folk music in 1912, when he recorded several Bulgarian songs in a village near Timisoara in Rumania. According to John Pernecky's ethnological writing 'Historically Bulgaria has had more political and musical contact with Greece than with any other Balkan country. Thus, Bulgaria was in a position to absorb much of the Byzantine elements of melody and rhythm.' Whereas the European music known to Bartók consists of measures with single beats of a single length (e.g. quarter notes), most of the Bulgarian tunes feature consistently repeated measures with two different durations in a relationship of 2 to 3, e.g. a quarter and a dotted note. In Bulgarian music, this possibility of adding together unequal values of 2 and 3 in a measure creates a large number of additive meters: e.g. 5/16 (2+3), 7/16, 9/16, 11/16. Bartók began to use Bulgarian meters as a structural device. He defines the rhythm in the following: 'Bulgarian rhythm is that in which the quantities indicated in the irregular time-signatures are exceptionally short (M.M.= 300-400), and in which these very short, basic quantities are not evenly-that is to say not symmetrical grouped within larger quantities.' We can find those metrical principles in the fifth movement of the *Fourth String Quartet* (1928), the third movement of the *Fifth String Quartet* (1934), *Music for Strings, Percussion, and Celesta*, fourth movement (1936), S*onata for Two Pianos and Percussion*, second movement (1937), *Contrasts*, third movement (1938), and *Mikrokosmos for Piano*, nos.113, 115, and 148-53.

At the end of the same year Bartók received a letter from László Rásonyi, a Hungarian-born philologist and professor at the newly founded University of Ankara, Turkey. He asked the composer if he would be interested in undertaking a visit to Ankara for lecture purposes.[8] At the same time the Turkish government asked Paul Hindemith[9] to help them organize their musical life and education. With Hindemith's assistance and expertise, the Turkish Government founded the Symphonic Orchestra and Conservatory of Ankara. The government was also interested in inviting Bartók to help them collect their own folk songs. Bartók gladly accepted the invitation and asked if he could also make some collecting trips in Turkey with official help. Before this trip Bartók saw some pamphlets published by two Turkish musicologists (A. Adnan Saygun and Mahmus R. Gazamihal), showing the relationship of Anatolia to Asia, and to Hungary as well. Bartók's interest was piqued, since this was a good opportunity to verify the origins of Hungarian peasant music for himself. He visited Ankara in November of 1936 and stayed in Turkey about a month, giving three lectures on folk music. The organizers also presented an orchestral concert based on Hungarian music (orchestral works by Bartók and Kodály). Bartók had one shorter collecting trip in the region of Anatolia.[10]

Hungarian history books describe the long Turkish occupation of Hungary (1526-1686). These years naturally influenced the whole cultural life of Hungary, including music. In addition to the approximately 150-year occupation of Hungary, recent studies show that before the Hungarian settlement, the wandering Hungarian tribes met with ancient Turkish nomads. The Hungarian language is related to the Turkish in a complicated manner; both languages stem from

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[8]D. Dille, ed., *Documenta Bartókiana* (Budapest: Akadémiai kiadó, 1968), 3: 179-183. Rásonyi asks Bartók to lecture on three questions: (1) the connection between Hungarian and Turkish music, (2) the development of Hungarian music and its apparent state, and (3) how a Turkish national music could develop.

[9]German composer, 1895-1963.

[10]He visited a region near the city of Adana. The Turkish nomad tribe called the Yürük lived in the summer in the Taurus mountains. In winter time, they moved near the Syrian border, close to the sea and the city of Adana. The nomadic life style, which Bartók observed on his collecting trip, was similar to the Hungarians' of the seventh century. The Yürük nation still lived in very primitive circumstances. They lived in tents and moved in order to have food for their animals.

the Cheremiss (Mari) language group, which influenced the Hungarian language before the ninth century.[11] Interestingly the present Hungarian language still has approximately 300 words inherited from that time, antedating the 150-year occupation.

While collecting in South Anatolia, Bartók discovered the surprising resemblance between some Turkish melodies and old Hungarian tunes. In his study on Turkish Folk Music from Asia Minor, Bartók writes:

> Even these few examples provide enough evidence to indicate the closest relationship or, as I would put it, the identity of both materials. This identity is an irrefutable proof of the age of these melodies: it shows the way back to the sixth or seventh centuries. During that period the ancestors of the Anatolian Turks lived somewhere on the borders of Europe and central Asia, in the neighborhood of other Turkish tribes; the ancestors of the Hungarians occupied an area between the Caspian Sea and the Black Sea . . . And now, in step, musicology brings proof of the identity of the Old Hungarian and the Old Turkish music, proof corroborated by the specimens of the mentioned Cheremiss and Kazan-Turkish folk music, which show a related music structure and even near-variants of Hungarian melodies. . . , it is evident that this musical style must be at least fifteen hundred years old.[12]

In a short period Bartók collected 90 songs, with one fourth having similarities to the old Hungarian tunes (descending melodic line) and one tenth simply variants of old Hungarian tunes. In the case of these related Hungarian and Turkish tunes, the language and music are closely connected. During one recording session, both Bartók and his Turkish colleague Saygun described the music as frightening, because of the drummer's sound. The so-called davul player rattled the window panes and made the flames of the oil lamps leap in cadence along with the zurna player (an oboe-like wood wind instrument) whose harsh tone made Bartók drop his

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[11]Béla Bartók: *Turkish Folk Music from Asia Minor*. Ed. Benjamin Suchoff (Princeton and London: The Princeton University Press, 1976), 29. In the Preface Bartók gave a short summary of the language relationship between Cheremiss (Mari), Hungarian and Turko-Tartar people.

[12]Ibid., 39-40.

writing materials and cover his ears with his hands. Interestingly the *Sonata for Two Pianos and Percussion* sometimes features the same "unbearable" loud moments.

By the date of the composition of the *Sonata for Two Pianos and Percussion*, Bartók was acquainted with all kinds of folk music as well as their categorization. He made an outstanding study in 1934, comparing Hungarian folk music with that of neighboring nations. His wide ranging research allowed him to summarize the interrelations among Hungarian, German, Ruthenian, Slovakian, and Serbo-Croatian tunes.[13] In addition, he wrote an interesting summary of the Turkish-Anatolian collection in 1937.[14] One of his earlier studies (1917) summarizes the melodies and rhythms of Arabian music in northern Africa in the region of Biskra.[15] I believe that Bartók's studies of the percussion instruments and rhythms in the music of these nations influenced his composition of the *Sonata for Two Pianos and Percussion*. These studies (especially of the Arab and the Turkish percussion) probably provided impetus for the compositional process of the *Sonata for Two Pianos and Percussion*, and especially for the percussion part.

[13]His treatise, Népzenénk és a szomszéd népek népzenéje (Hungarian Folk Music and the Folk Music of Neighboring People), was quoted on Budapest Radio on 21 November and again on 15 January, 1934.

[14]Béla Bartók, *Turkish Folk Music from Asia Minor* ed., Benjamin Suchoff (Princeton and London: The Princeton University Press, 1976).

[15]Béla Bartók: *Arab Folk Music from Biskra District.* "Die Volksmusik der Araber von Biskra und Umgebung." Zeitschrift für Musikwissenschaft 9 (November 1920), 489-522.

The Significance of this Period with Examples

The 1930's was a period when Bartók did not compose many pieces; but each completed work emerged as a masterpiece. The works from this decade were created mostly as a result of commissions. Bartók had grown away from Hungary. The premières of his *Piano Concertos No. 1* and *No. 2* had taken place outside of Hungary. In August of 1934 the *String Quartet No. 5* was composed. Elizabeth Sprague-Coolidge commissioned the work, and it was first performed in North America by the Kolisch String Quartet. Bartók dedicated the quartet to the Music Fund Society of Philadelphia which had awarded him the first prize in the international string quartet competition of 1937. It is worth mentioning that the movements both in the *Piano Concerto No. 2* and *String Quartet No. 5* relate to each other in an analogous formal way. The palindromic ABA or ABCBA forms can describe the organization of each movement of each piece. *String Quartet No. 5* has five movements and the core of these movements is the central Scherzo. The Scherzo movement is encircled by two slow movements. A similar scheme informs the *Piano Concerto No. 2*'s Adagio-Scherzo-Adagio second movement. However, in this case, Bartók built in the ABA form within a single movement: the Scherzo middle section with outer Adagio layers. The form, which is symmetrical in the most perfect way, is effectively used in several works by Bartók. This phenomena also related to the *Sonata for Two Pianos and Percussion*. The first and the third movements have similar features and characters. They surround the central second movement.

Between 1930 and 1935, Bartók's activities moved in a different direction. There were differing views of his music. His success abroad contrasted with isolation in his homeland, Hungary. The beginning of the 1930's was a time when Bartók performed his work throughout Europe with great success. However, he did not appear in concerts in Germany since his performance of the *Piano Concerto No. 2* (1933) and did not give concerts in Budapest for almost four years (1934-38). In a neutral country, Switzerland, he had tremendous success in

1936 with his new composition commissioned for the 10th anniversary of the Basle Chamber Orchestra, the *Music for Strings, Percussion and Celesta* in four movements. Throughout the last three movements the string parts are divided into two groups. György Kroó summarizes the piece as follows; ' a masterpiece which virtually constitutes a summary of Bartók's forms and movement types.'[16] Again, symmetry exists in every form in Bartók's music: previously mentioned was palindromic, or bridge forms. In the *Music for Strings, Percussion and Celesta* the division between each instrumental groups produces a stereophonic effect. According to Bartók's precise description of the arrangement of the instruments on the stage, each instrumental group faces the other recalling the double chorus effect from the 17th century. The arrangement of performers in the *Sonata for Two Pianos and Percussion* is similar, but employs fewer performers.

In the time of Bartók's studies on several nation's folk-music, Europe was mainly influenced by German politics.[17] The rising tide of National Socialism threatened to overrun the continent and the winds of war were being felt. Under the theory of Aryan supremacy, the Jews had already been divested of citizenship, jobs, and even life. Bartók was asked in an official form letter about his racial origins:

> . . . I received the notorious questionnaire about grandfathers, etc. then: 'Are you of German blood, of kindred race, or non-Aryan?' Naturally neither I nor Kodály will fill in the form: our opinion is that such questions are wrong and illegal. Actually it's rather a pity, for we could give answers that would make fun of them; e.g., we could say that we are non-Aryans-because (according to my lexicon) in the last analysis 'Aryan' means 'Indo-European'; we Hungarians are Finno-Ugrians, or ethnically, we might possibly be northern Turks, that is, we are a non-Indo-European people, and consequently non-Aryans. . .[18]

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[16]György Kroó, *A Guide to Bartók.* (Budapest: Zenemükiadó, 1971), 185.

[17]For instance, Népzenénk és a szomszéd népek népzenéje (Hungarian Folk Music and the Folk Music of Neighboring Peoples), also see footnote no.9.

[18]János Demény, ed. *Bartók Béla levelei* (Béla Bartók Letters) (Budapest: Corvina Press, 1971), 268.

This letter was written to his admirer and friend; Frau Professor R. Oscar Müller-Widmann (13 April, 1938), with whom Bartók often stayed during his European tours in the second half of the 1930's. She was an important figure who lived in Basle and shared similar political views with Bartók. Attacks against the Jews influenced hundreds of thousands of people's every day lives. Bartók's letters written during this period are full of sarcastic and critical remarks. He was, by nature, cosmopolitan. He spoke several languages, had numerous international friends, and most of all, he collected folk music throughout Europe while appreciating the colorful variations of different cultures. He was totally against the growing German politics which emphasized the hierarchial differences between nations, people and ethnic groups. Many of the most important musicians of Europe had fled to the United States (e.g. Paul Hindemith, Arnold Schoenberg). Hungary, drawn to the Rome-Berlin axis by its desire for modification of the Treaty of Trianon, was dangerously close to the German state of mind. Bartók's main concerns were summarized in the same letter, mentioned before, to Frau Professor R. Oscar Müller-Widmann:

> [That] There is the imminent danger that Hungary will surrender to this regime of thieves and murderers. The only question is-when and how? And how I can then go on living in such a country or-which means the same thing-working, I simply cannot conceive. As a matter of fact, I would feel it my duty to emigrate, so long as that were possible. But-even in the most favorable circumstances-to have to earn my living in some foreign country (to start toiling at the age of 58, to begin, say, teaching, and to be wholly dependent on it) would be immensely difficult and would cause me such distress of mind that I can hardly bear to think of it. In that event I could achieve nothing, and in such conditions I could not do my proper and most important work anywhere else either. Consequently, it is exactly the same for me whether I go or stay. - And then I have my mother here: shall I abandon her altogether in her last years? - No, I cannot do that! So much for Hungary, where unfortunately, nearly all of our 'educated' Christians are adherents of the Nazi regime; I feel quite ashamed of coming from this class.[19]

In this confused political period Bartók was isolated in his home country, but did not cease working and composing. Examining the compositional dates of his important works in this

[19]Ibid., 267.

period, one can see that Bartók usually composed in the summer months or in the early autumn months, usually after his early summer vacation (for example *String Quartet No. 5* from August to 6 September, 1934; *Music for String Instruments, Percussion, and Celesta* from June to 7 September, 1936; and the *Sonata for Two Pianos and Percussion* from July to August, 1937).

1936 and 1937 were rather creative years; in the former he wrote the *Music for Strings, Percussion, and Celesta*, which Paul Sacher had commissioned for the tenth anniversary of the Basler Kammerorchester. After this work's tremendous success (21 January, 1937), in May Bartók had undertaken the second commission for the Basle section of the ISCM (International Society of Contemporary Music), the *Sonata for Two Pianos and Percussion*. In the first half of 1937 Bartók also gave performances throughout Belgium, Holland, France, England and Switzerland. In the next fragment of the letter written to his good friend, Frau Professor R. Oscar Müller-Widmann (24 May, 1937), Bartók reports about his summer plans. This was the summer when he started to compose the *Sonata for Two Pianos and Percussion*:

> As to our traveling next summer, we-my wife and I-had really planned a journey, not to France but to the French part of Switzerland (to Fionnay, near Sembranches). From there I should have liked to go to Paris to take part in the meeting of the Comité des Lettres et des Arts, July 20th-23rd. But because of my recent illness (‘flu and bronchitis), I have lost so much time that I must give up my visit to Paris. . . Because of all this, we have to alter our plans completely-we will go to somewhere in Carinthia, which will be a much less expensive journey.[20]

Bartók was still occupied with the Turkish material, which he had begun investigating in the fall of 1936. While transcribing and analyzing Turkish folk tunes, he had sent some questions concerning the Turkish texts to Ahmed Adnan Saygun, who accompanied him on his collecting trip to Anatolia: 'Now, while on vacation, I am studying the texts of my Turkish collection with the help of your translations.'[21] One of the letters written to his son, Béla (14 July,

[20]Ibid., 257.

[21]Ibid., 261.

1937) can verify the exact date of the Bartók couple's vacation.[22] Bartók mentions that they were then returning to Hungary, hence, they had been on vacation for almost four weeks. After arriving home, Bartók almost immediately started to compose the *Sonata for Two Pianos and Percussion*. It is obvious that contemporaneously with composing the *Sonata for Two Pianos and Percussion*, Bartók was still working on the Turkish folk songs. Another letter provides some interesting information about the same matter. Bartók wrote to his son, Béla (21 of August, 1937):

> . . . We are well, the vacation was very pleasant, and now I am working again on a 'commissioned' piece for Basle (but now it is a chamber piece). Hopefully I will be ready with it very soon. I have another piece to write for commission (violin concerto), but I am not sure if I can finish it, perhaps it will have to wait for the fall months. Sometimes, for fun, before I go to sleep, I study some Turkish . . . [23]

When he received the commission in May for the new work, it was Bartók was free to choose the medium he wanted to use:' What kind of chamber music can it be? Or a piano trio? Do you or don't you consider a work for voice and piano chamber music? ' asked the conductor, Paul Sacher in a letter of 24 May, 1937.[24] In another letter, Bartók seemed to have a more concrete plan for the instrumentation: 'The quartet for two pianos and two percussion groups would naturally be scored for four performers, two of whom could naturally play side drums and other similar instruments. . .' [25] We know that, contrary to the composer's marking, the piece was not ready by the end of August, as on 2 September he wrote to Sacher, 'I am pleased to tell you that I have been able to nearly finish the planned work - my choice fell on a quartet for 2 pianos and 2 percussion groups-and so you may count on it. It consists of three movements, the 1st and

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[22] *Bartók Béla családi levelei* ed., yr. Béla Bartók (Béla Bartók Family Correspondence) (Budapest: Zenemükiadó, 1981), 574. Bartók states on this postcard, that they left for a vacation on the 15 June.

[23] Ibid., 576. The translation from Hungarian to English was made by the author of this dissertation.

[24] János Demény, ed., *Bartók Béla levelei* (Béla Bartók Letters) (Budapest: Zenemükiadó, 1976), 551.

[25] Ibid., 556.

the 2nd of which are ready, and the 3rd halfway through. Its duration will be presumably somewhat more that 20 minutes. . . I hope to [be] able to send you the 1st and the 2nd movements by the end of September, and the 3rd by mid-October.'[26] In his letter of 18 October, Bartók changes the title into: *Sonata for Two Pianos and Percussion*, ' because if two percussionists are not enough, a third performer may perhaps also be needed, so that the "quartet" may turn into a "quintet." '[27]

Almost exactly one year after the première of the *Music for String Instruments, Percussion, and Celesta*, on 16 January, 1938, the première of the *Sonata for Two Pianos and Percussion* was a family event, in that his wife - Ditta Pásztory - made her first appearance abroad. Béla Bartók, together with his wife, played the piano parts and the percussion instruments were played by Fritz Schiesser and Philipp Rühlig of Basle. The preparation of the work was described by Paul Sacher in the following statement:

> [Bartók's] impassioned objectivity penetrated everything. He was himself clear to the smallest detail and demanded from everyone the utmost in differentiated precision. Therefore in rehearsals he showed great patience and was never annoyed when the realization of his intentions did not take place without trouble . . . Bartók had summoned me to conduct during rehearsals and eventually at the concert as well. This proved superfluous, however, when the time came, since Bartók and his wife had mastered the two piano parts irreproachably, while the percussionists solved their problems skillfully and to the complete satisfaction of the composer. In these rehearsals Bartók gave proof of his genuine modesty. He undertook with the greatest matter - of - factness all the irksome requirements of the work, and treated both the assisting musicians like colleagues despite his characteristic proud reserve.[28]

In addition to the *Sonata for Two Pianos and Percussion,* in this disturbed political situation Bartók wrote four more masterworks: *Contrasts* and the *Violin Concerto* in 1938, the former was performed in New York by József Szigeti, Benny Goodman, and the composer in

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[26]Ibid., 558.

[27]Ibid., 562.

[28]Paul Sacher, 'Béla Bartók zum Gedachtnis.' Mitteilungen des BKO (Basle), 17 November 1945.

1940; while the *Violin Concerto* was commissioned by Zoltán Székely and premièred in Amsterdam. The *Divertimento* was the third piece commissioned by Paul Sacher and was performed in 1940. Bartók's last String Quartet, his sixth, was written between August and November of 1939. The première of *String Quartet No. 6* as well as the first American performance of the *Sonata for Two Pianos and Percussion* took place in New York.

Reception in Europe and United States

The piece was a great success throughout Europe. While on a tour that continued after the Basle première, Bartók writes to his former student, Sándor Albrecht on 31 January, 1938.: 'I started off in Basle with a performance of my new work (which I think I mentioned to you some time ago) for 2 pianos and 2 groups of percussion instruments; my wife played the 2nd piano and held her own splendidly. The whole thing sounds quite unusual - but the Basle people liked it anyway.'[29] Among the letters written to his mother, one was written on the exact day of the première of the *Sonata*; Bartók, his wife - Ditta Pásztory, Paul Sacher, Stefi Geyer (Bartók's first great love) and A. Müller-Widmann; just to mention a few of the signatures of a signed menu (they had a dinner after the première together) and congratulated Bartók's mother together for her 81st birthday.[30] Bartók felt great success and perhaps happiness on that night. He was proud of his wife's achievement, was glad that his mother at home approached her 81st year, and that his work was acclaimed; he recalls the evening in several letters: ' . . . As for the 2 piano + percussion sonata, its world-première has been given in Basel 2 weeks ago. My wife and myself played the 2 pianos-it had a "tremendous" success. Mrs. Bartók played very well - this was her first public appearance in a foreign country. After that première I had to go alone to Luxembourg, Brussels, Amsterdam, Haag, and London to accomplish there not very interesting works, only for [the] sake of getting money!' he wrote to his other former student, Wilhelmine Creel on 31 January, 1938.[31] The Bartók couple did not go together on tour following the Basle première, however, in the summer of 1938 they started to perform the *Sonata* throughout Europe again.

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[29]János Demény, ed., *Bartók Béla levelei* (Béla Bartók Letters) (Budapest: Corvina Press, 1971), 264.

[30]*Bartók Béla családi levelei* ed., yr. Béla Bartók (Béla Bartók Family Correspondence) (Budapest: Zenemükiadó, 1981), 578-580.

[31]János Demény, ed., *Bartók Béla levelei* (Béla Bartók Letters) (Budapest: Corvina Press, 1971), 265-266.

In 1939, Bartók summarized his previous performance of the *Sonata* in a letter to Dorothy Parrish: 'A novel thing is that recently I am frequently playing in concerts compositions for two pianos with my wife. I myself have composed a Sonata for two pianos and percussion instruments, we have played it already in Basle, London, Amsterdam, Brussels, Luxembourg, and of course in Budapest. We are again leaving next week to play it in Zurich and in Paris.' [32] The exact dates of the performances are the following: in 1938, 16 January - Basle; 11 June - Luxembourg; 13 June - Brussels, 20 June - London; 31 October - Budapest; 15 November - Amsterdam; 20 November - Brussels; in 1939, 17 February - Zurich; 27 February , 6 March - Paris; 8 April - Venice. The performances were different in each place: in Luxembourg the Bartóks had to play with a conductor, who kept together all of the performers, namely four percussion players and two piano players; the Brussels performance was successful, though Bartók wrote to his mother that he made some mistakes because of the percussion player's hesitation. In London they could rehearse only six and a half hours, but the percussion players were quite good. The percussionists' accomplishment in Basle can only be fully appreciated if one knows that in October of that year Bartók wanted to cancel the first performance in Budapest because of the failure to keep the percussion players together. Finally the Bartóks performed it with Ernest Ansermet as conductor. The two percussion players in Basle were the prototypes, ideal models, for later critics of other percussion players. In Italy the performers had to play on unmatching pianos: one of the pianos was very short. Along with a conductor, six, quite weak percussion players participated in the performance. The last "business trip," as Bartók called it, to Italy, also was not pleasant at all and Bartók wrote: 'I [will] never come to this country to play piano'.[33] One year earlier he already announced that he would refuse to allow the German and Italian radios to transmit his performances broadcast from Radio Budapest. The growing Nazism prevented the Bartóks from playing in Germany. The Bartóks did not play the *Sonata for Two*

[32]Ibid., 276.

[33]László Ferenc, 99 Bartók-Levél (99 Bartók Letters) (Bukarest: Kriterion Könyvkiadó, 1974), 163.

Pianos and Percussion in Eastern Europe either. The Czechoslovak authorities did not permit Bartók to give the recital scheduled to take place at Bratislava: ' What a pity we can't give it in Pozsony [today called Bratislava]!'- wrote Bartók to his friend and former piano student, Sándor Albrecht on 31 January, 1938.[34] The constant menace of the Third Reich strengthened national feelings in the countries of Central and Eastern Europe. Slowly the gates of the European countries closed and made it impossible for the composer to travel and participate in concerts.

Although Bartók had concert tours on two occasions in the United States, only in 1940 did Bartók and his wife say farewell to Hungary and arrive for better prospects in the United States. Before World War II started, in 1938, Bartók sent his most valuable manuscripts out of the country. He decided to secure them in Switzerland, including the *Sonata for Two Pianos and Percussion*. The Bartóks were ready to leave Hungary only after the death of Bartók's beloved mother.

The first performance of the piece in America took place soon after they arrived in New York. From an interview with Saul Goodman (the timpanist of the first performance given in Town Hall in New York in 1940), one learns about the difficulties of the first rehearsals and the piece's reception in the United States.[35] The Bartóks arrived in New York on 30 October. As Saul Goodman remembers, on the day of their arrival they were supposed to rehearse. After the Bartóks' late arrival, Bartók gave out the parts to the two percussion players. In addition to the misunderstanding regarding which percussion instruments are required, the second percussion player had to be replaced because of his lack of vigor. The Boosey & Hawkes Artists Bureau had arranged a concert series for Bartók - some with lectures on piano playing or folk music - for the 1940-41 season, beginning with the *Sonata for Two Pianos and Percussion* on 3 November in Town Hall and ending with a concert of music for two pianos at the Baltimore Museum of Art

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[34] János Demény, ed., *Bartók Béla levelei* (Béla Bartók Letters) (Budapest: Corvina Press, 1971), 264.

[35] Paul Jasionowski, 'An Interview with Saul Goodman about the Bartók Sonata' in *Percussive Notes* Vol. 32/No.2 1994 April

Auditorium on 16 April 1941.[36] In 1991, when the interview was published in the journal Percussive Notes, Saul Goodman was the only surviving member from the première in the United States. [37] He said that in 1940 they had 13 rehearsals, which resulted in a fairly stable performance. Unfortunately a little accident happened; Bartók turned two pages instead of one, and had to stop the performance for a moment. The music critics did not realize the importance of this piece at first; but there was one review written by Noel Strauss, writing in the New York Times on 4 November, 1940:

> . . . Superbly performed by both of the pianists with the expert assistance of Saul Goodman and Henry Deneke, Jr., percussionists, the novelty completely dispelled any notion that Mr. Bartók's power as music creator had waned in the slightest during the years . . . But the composition was far more than a complex of fascinating sounds . . .[38]

Bartók later scored the Sonata for orchestra, as a *Concerto for Two Pianos*, at the request of the publishing company, Boosey & Hawkes. After the first performance in New York, in the Carnegie Hall on 21 January 1943, the conductor Fritz Reiner questioned Bartók about his excessively fast tempos. Bartók's answer was naturally undisturbed: ' The timpanist is the one who started everything. He played a wrong note, suddenly giving me an idea that I had to try out, and follow through all the way, right then. I could not help it - there was nothing else for me to do.'[39] As we know, this first performance of the orchestral version was the last performance of Bartók's life. Shortly after the event, his illness became very serious, and, unfortunately, the composer died in 1945.

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[36]Benjamin Suchoff, *Béla Bartók Life and Work* (Lanham and London: The Scarecrow Press, 2001), 143.

[37]Paul Jasionowski, "An Interview with Saul Goodman about the Bartók Sonata" in *Percussive Notes* Vol 32/No.2 1994 April, 55-59.

[38]Ibid., 55.

[39]Agatha Fassett, *The Naked Face of Genius* (Cambridge: The Riverside Press, 1958), 261.

The orchestral version is an almost unperformed reworking of the *Sonata*. The original version is more convincing and complete. Besides the pianos, the required instruments include three kettledrums, xylophone, two side drums (one without snares), cymbals, suspended cymbal, bass drum, triangle, and tam-tam. The orchestral version adds to these trombones, celesta, and strings. The piano parts being slightly modified, especially in climatic passages where the weight of the orchestra is more pronounced:

> It seemed advisable, for certain technical reasons, to add orchestral accompaniment to the work, though, as a matter of fact, it gives only colour to certain portions of the work. The two piano and percussion parts remain practically unchanged, except for some of the climatic parts which are now taken over from the two pianos as tuttis by the orchestra.[40]

[40]Béla Bartók, *Irásai/1*. (Writings) (Budapest: Zenemükiadó, 1989), 87.

Posterity

Nowadays a performance of the *Sonata for Two Pianos and Percussion* poses fewer procedural questions. Every performer, particularly the percussion players, knows what instruments are required and in what position they must be placed. 'As I say, the performance of the Bartók *Sonata for Two Pianos and Percussion* today is nothing. You get kids out of Julliard, Curtis, or Indiana and they can knock this thing right off.' said Saul Goodman in 1991.[41] The piece's fame has grown and it is played everywhere now. The general view is still that the *Sonata* is a very difficult and complex piece to play. It requires careful preparation and practice. This issue along with the original recording of the piece played by the Bartóks, will be discussed in Chapter 4.

[41]Paul Jasionowski, 55-59.

The purpose and importance of the piece

I believe that the *Sonata for Piano and Percussion* piece provides a fascinating example of the sonata genre in the twentieth century. Bartók utilizes typically "Bartókian" compositional techniques and styles in three very different movements. The first movement introduces some interesting usage of sonata form, to be explored in detail in the analysis of Chapter 3. The second movement is a nocturnal song inspired by the sounds of nature. The Finale is a dance in a sonata rondo form.

The *Sonata for Two Pianos and Percussion* is undoubtedly a monumental achievement distinctive of Bartók's mature period. It is also a symbolic product of the creative, pioneer composer. Bartók was constantly searching after new sounds and new instrument combinations. Without a doubt he created something new in this piece. The choice of the instruments in this piece is not accidental: probably the final goal is the balance between the "melodical" percussions and the "rhythmic" pianos. Therefore, rhythm will be discussed thoroughly. Interchanging the normal roles of the instruments is one opportunity to find new sounds. Naturally, this interchange is supported by new ideas and inventions composed into the music.

The idea of combining percussion instruments and piano was born much earlier. 'For some years now I have been planning to compose a work for piano and percussion. Slowly, however, I have become convinced that one piano does not sufficiently balance the frequently very sharp sounds of the percussion. That is why I changed my mind and included two pianos instead of only one in contrast to the percussions.' wrote Bartók in an article, which appeared before the première in the Basler National Zeitung. [42] Among all instruments, the percussion is the one which primarily conveys rhythm and forces color into the background. Beginning in the first two decades of the 20th century, Bartók was stimulated by his experience with Arab music.

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[42] Ibid., 191.

Since then, he used rhythm as one of his most important means of expression. Similar to the *Sonata*, the first two piano concertos (he wrote the *Piano Concerto No. 1* in 1926 and four years later *Piano Concerto No. 2*.) can be described as unique in their sound. Not only are the percussion players active participants in these concertos, but the piano solos also can be described as percussive. György Kroó characterizes the piano's treatment as a percussion instrument in the following: 'The percussion-like treatment of the instrument also means that the pianist strikes the notes as a sound-field, a sound-patch which has no independent harmonic meaning, only color value. This is surely nothing less than the contemporary avant-garde cluster technique.' [43] Kroó in his book also introduces the so-called Bartók pizzicato, a percussive pizzicato rebounding to the finger board with a snap. The rumbling, motoric ostinato repetitions are constant accompaniments to the piano solos.

The *Piano Concerto No. 1* is more barbaric in its use of repetitive ostinato. The influence of Stravinsky is evident in the *Piano Concerto No. 2*. The *Sonata for Two Pianos and Percussion* is a good example of repetition as a main expressive phenomenon. Repetition is one of the most ancient musical elements. This rhythmical feature can express different things, as we can hear in so many Bartókian pieces including the percussive piano music. It probably comes from the sounds of percussion instruments from the beginning of human history. Humans imitated nature and varied it to their taste. In Bartók's music, repetition can have different functions; it causes tension, imitates nature sounds; e.g. birds, insects, etc., connects greater parts within the music. Repetition in the *Sonata* will be discussed thoroughly in Chapter 3.

[43] György Kroó, *A Guide to Bartók* (Budapest: Corvina Press, 1971), 132.

CHAPTER 2

THE LEGACY OF BARTOK'S MANUSCRIPTS AND THEIR COMPARATIVE ANALYSIS

Linear Analysis

In this chapter, I shall carefully compare the first draft and the later version of the first movement of the *Sonata for Two Pianos and Percussion* (published score by Boosey & Hawkes). There are significant differences between the two versions, especially in certain sections. Fortunately, the younger son of Béla Bartók, Mr. Péter Bartók, sent me all available written manuscripts of the *Sonata for Two Pianos and Percussion*, which encompass approximately 500 pages.[44] I will focus primarily on the earliest manuscripts (primarily PB75FSS1), which deviate most significantly from the published score.[45]

Bartók created in a unique way. First, he tried out ideas on the piano, often not recording these improvisations. At times he wrote down the core of a theme or shorter idea, as is the case

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[44]These are the systamatic codes for the manuscript of the *Sonata* possesed by Mr. Péter Bartók:
PB 75FSS1
PB 75DID1
PB 75FSID1-ID3
PB 75FSID2A,2B
PB 75TPSPFC1
PB 75DID2
PB 75DID3
PB 75TFSID1FC1
PB 75TPSPFC2
PB 75TDFC3
PB 59FSS1

[45]key-codes for the upcoming letters and numbers:
PB = Péter Bartók, the director of the Béla Bartók Estate located in Homosassa, FL
75 = *Sonata for Two Pianos and Percussion*
59 = *Mikrokosmos*
First one or two letters after the number; T = transcription P = piano FS = full score D = drum
Letters following them; S = sketch ID = intermediary draft FC = final copy
Last number is the symbol for the latest version (e.g. '1' stands for the first version, first source)

in the first sketch of the *Sonata* (**Ex. 1, A**). This sketch is among the *Mikrokosmos* sketches (on the 71st page of PB59PS1) including a very short outline for a motive, which was used in the first movement, in mm. 26-31 (**Ex. 1, B**). The length of this outline is three measures written on three staves (**Ex. 1, A/1.2.3.**). These three measures include the syncopated ostinato pattern from mm. 26-31 (**Ex. 1, B**). The three staves of the first sketch - stand for the two piano parts in the published version: the first line of the first sketch represents the unison melody of the first piano part of the published version (**Ex. 1, A /1.** and **Ex. 1, B/1.**); the second and third lines of the first sketch are the two voices of Piano II of the published version (**Ex. 1, A/2.3.** and **Ex. 1, B/2.3.**). Essentially, these three lines agitate the same melody (a broken diminished chord and an added step of a second) with syncopated rhythm composed employing contrapuntal-canon technique (**Ex. 1, B/1.2.3**).

After examining the first draft of the work as a whole (PB75FSS1), one realizes that the short sketch in the *Mikrokosmos* manuscript was written earlier, since in the PB75FSS1 draft, the melody is already doubled in octaves (**Ex. 1, C/1.2.**). As previously mentioned, the sketch in PB59PS1 presents three measures (**Ex. 1, A**); while the same motive in the PBFSS1 draft spans four measures (**Ex. 1, C**). The final, published version presents six measures of the same ostinato pattern (**Ex. 1, B**). The last version is the most effective, more gradually preparing the first group's first section appearing in m. 32. This preparation is simply a repetition of the same pattern with increasing dynamic level and doubled voices (**Ex. 1, B** from m. 28, both piano parts are doubled in the right hand by octaves). This short example represents the basic technique in Bartókian compositional style; one single chordal motive is repeated several times vertically and horizontally, varying the number of voices and the dynamic levels.

One can account for several differences by examining the first draft and the later version of the work. The most significant difference is that the first movement in the initial draft (PB75FSS1) presents two versions of the transition section, which leads to the recapitulation (**Ex. 32, A** and **Ex. 32. B**). Before analyzing the transition section in both versions, I would like to discuss a number of small changes, presenting some examples of each.

In general, Bartók's writing is clear and well organized; on the one hand he does not change many things once he writes down a new composition. On the other hand, there are pencil marks, which are quite unique within the ink-written manuscript. In those cases where he left blank measures, these were filled in with pencil afterwards. This phenomenon can be found on pages 18 and 35 of the PB75FSS1 sketch, where Bartók added some textual notes indicating the repetition of certain measures. On the eighteenth page (**Ex. 2, A/1.**), above the first line, we find the following text three times: "one more measure of only second piano and bass drum" ("még egy ütem csak II. z.[ongora] és gr.c.[nagydob]"). This annotation indicates the repetition of the same measure. The third text above the line (**Ex. 2, A/6.** and **Ex. 2, B/6.**), has an extra mark with a short rhythmic pattern: "one more measure of second piano, Bass drum and side drum with snares" ("még egy ütem II. z.[ongora] és gr.cassa[nagydob]és tamb p., c.c. [kisdob felengedve]"). Thus Bartók changed the third repetition with an added side drum sound.[46] Piano II in the published version has a simpler and more comprehensible melody with the extra inserts (compare **Ex. 2, A/2.3.4.5.** with **Ex. 2, B/2.3.4.5.**).

After a careful comparison of the first draft with the final version, one realizes that the two piano parts are often exchanged; in the initial version, in many cases, the first piano part plays a more leading role. This conception is revised in the published score such that the two piano parts' roles are more balanced and equally important. The annotation functions similarly as in the previous example (the text is above the second line in both piano parts) on page 35 of the first sketch (**Ex. 3, A**); "several times," "last time" and "last time omitted" ("többször," "utoljára" and "utoljára elmarad"). These vague instructive words belong to the piano parts in the third movement of the *Sonata*; however, we know that the "several times" in the published version means to repeat the same pattern of two measures six times (compare **Ex. 3, A/1.** and **Ex. 3, B/1.**). Piano II has to eliminate the last three sixteenth notes of the pattern at the last (sixth) repetition (compare **Ex. 3, A/2.** and m. 347 in **Ex. 3. B/2.**). Because of the omission, the

[46]See Chapter 4, the importance of the number 3.

connection becomes more clear between the ostinato part and the following section (**Ex. 3, B/2.**).

Minor Changes

The next section of this chapter will discuss minor changes between the first draft and the published score. There are different types of comparison:

1. differences in melody:
    A/ spelling - enharmonic note change
    B/ changing the order of notes
    C/ omitting notes
    D/ adding notes

2. differences in rhythm:
    A/ changing rhythmic values
    B/ changing meter

3. differences in tone-color:
    A/ adding doubled or tripled notes, intervals
    B/ omitting doubled or tripled notes
    C/ changing register
    D/ adding percussive parts
    E/ exchanging two piano parts

There are countless examples of the 1/A level (spelling - enharmonic note change). Perhaps one might say that enharmonic notes sound the same in Bartók's music and their interchange is not worth mentioning. This is generally true, especially after examining the following details. In m. 14 of the first draft, the third eighth beat of Piano II is C (**Ex. 4, A/1.**),

while in the later version it changes to B# (**Ex. 4, B/1.**). The melody line of Piano II (**Ex. 4, B/2.**) part starts from the fourth eighth beat of m. 13 and ends in m. 14 (where the slur ends). This short melody is doubled by parallel tritones (augmented fourths and diminished fifths) in Piano II. These parallel intervals follow each other, consequently; they are in pairs of diminished fifths followed by augmented fourths (e.g. D-Ab interval of Piano II's right hand goes up by a half step to Eb-A in m. 13 of **Ex. 4, B/2.**). After the interval C#-G in Piano II (m. 14, second eighth note), the next logical step would be F#-B#. However, Bartók writes F#-C, as we see in the earlier version. This small change emphasizes the leading tone B# which moves to the last note of the melody, C#. This difference is not as significant when compared with another example, which makes more sense, since the same changing pattern appears sequentially.

In the first sketch, every fourth note of each descending motive in Piano II has a flattened note (**Ex. 5, A/1.2.3.4.5.6.**). All of them are sharpened (e.g. Eb becomes D#) in the published version (**Ex. 5, B/1.2.3.4.5.6.**). What caused the change? If the spelling is unimportant, why did Bartók change it? One possible answer could be that Bartók wanted a "brighter," "sharper" sound (indicated in the published version by the marcato sign), in which case, the sharpened notes theoretically are stronger than the flattened.

In the case of level 1/B (changing the order of notes), the composer's creativity plays a central part. For instance, in m. 386 there is a squiggly pencil mark made by Bartók (**Ex. 6, A/1.**). With this marking, he avoided the simplicity of a chromatic line, G-F#-F-E-Eb, by changing the order of E and F so that the line becomes G-F#-E-F-Eb. The change calls attention to the dyad F# -F (**Ex. 6, B/1.**). In the same example, the marcato and tenuto symbols also reinforce this change.

In the draft, m. 367 presents a similar mark made by the composer changing the order of two notes: F# and B (**Ex. 7, A/1.**). The original line is: C#-E-G-F#-B in m. 366, while the later version is: C#-E-G-B-F#. The purpose of this change can be discovered if we compare this measure with the previous one. Both motives in these measures crest and fall (see my annotations in **Ex. 7, B/1.**), as a result of imitation technique, which is part of a fugal section (see

m. 332 in **Ex. 14, B**). Perhaps the idea of the falling fourth foreshadows the agitated marcato leaps beginning in m. 368 (**Ex. 7, B/2.**).

There is a more complicated, curious change in m. 65 (**Ex. 8, A/1.** and **5.**). The Piano I starting from m. 65 has five chords in both hands (labeled 1-5 in **Ex. 8, A/1.3.** and **4.**). The chords' highest voice in m. 65 presents the following melody: A-G#-F#-F-G (**Ex. 8, A/1.**), which is repeated in m. 66 (**Ex. 8, A/2.**) and followed by an answer-like statement in m. 67: A-Bb-C-C#-B (**Ex. 8, A/3.**). Examining these two melodies placed together (**Ex. 8, A/1.** and **3.**), one can see that their starting point is A and both move in the same manner, but in opposite directions (the first half of the following melody is the reverse **Ex. 8, A/1.**):

[G F F# G# **A**] [**A** Bb C C# B]

Reverse Ex. 8, A/1. Ex. 8, A/3.

Bartók avoided this symmetry (mirror image aroun the A) in the later version by changing the melody in the top voice of the chords in m. 65 (**Ex. 8, A/5.**) to read A-F#-Eb-F-G (there is a pencil mark above the measure, changing G# to F# and F# to D#, which is enharmonic with Eb as notated in the final version). I would suggest that Bartók changed the melody to intensify the emphasis on F#. This hypothesis is supported a further revision: Bartók changed the order of C# and F# in the timpani part (**Ex. 8, A/6.**), thereby reinforcing the F# in the bass. In addition to supporting the melody in Piano I, F#-C# is repeated four times (**Ex. 8, B/5.**). Additionally, the initial beat of m. 69 presents the first strong arrival on F# and acts as an indicator of a new section (**Ex. 8, B/6.**).

My next example conforms to level 1/C (omitting notes): we will see how circumstances change when Bartók omits notes. In mm. 130-132, the original idea was the stubbornly repeated F#-Eb interval (m. 128ff., **Ex. 9, A/1.2.**). Bartók omitted some of the F#s and changed them to A, G and Bb (**Ex. 9, B/1.2.**). Through these small changes, the ostinato pattern, which repeats F#

and Eb exclusively, metamorphoses into a melody based on similar intervals of sixths: F#-Eb, A-F# or Bb-G (**Ex. 9, A/1.** and **Ex. 9, B/1.**). The motive based on the interval of the sixth plays the main role in the next section, *Vivo*, starting at m. 133 (**Ex. 9, B/3.**). Perhaps the choice of the aforementioned tones is not accidental in mm. 130 and 132. If we reorganize the order of the existing pitches played by the right hand of Piano I, we realize that there are two pairs of minor second intervals:

Eb D G F#
F# F Bb A

The formation of the four sixth-intervals (F#-Eb, F-D, Bb-G, A-F#) are similar to the coiled motive (F#-F-A-G# in m. 2). This evolution of an ostinato pattern into a more distinctly profiled melody prepares the following section. There are numerous cases where an ostinato pattern becomes a transition with repeated patterns slowly developing into a creative leading idea or motive.

There are some cases in the first sketch where not only notes, but rests are eliminated. There is always a reason for such a change, especially if we know that Bartók's thinking is extremely logical. For instance, in m. 13 an eighth-rest is deleted from the seventh eighth-note of this measure (**Ex. 10, A/1.**). There are two possible reasons for deleting the rest. Firstly, this rest would be the only break in Piano I between mm. 12-18 (**Ex. 10, B**). Perhaps, by bridging over the rest with a slurred retained note the flow of the melody is preserved. Secondly, with the slur, Piano I is now more clearly imitated by Piano II (**Ex. 10, B/2.**). While the Piano II has a slur on the first beat of m. 14, looking back to Piano I, it too should have a slur on the seventh eighth-note of m. 13, which Bartók subsequently added.

In m. 12 Piano I's melody starts on Ab, Piano II answers on D (a tritone lower). In m. 13 Piano I starts on D, while the answer of Piano II starts on Ab (**Ex. 10, B**). The significant difference between the two measures is the timing. In m. 12 the difference between the entrances of the two piano parts is two eighth-note beats, while in m. 13 the difference is three

eighth-note beats. The later entry in Piano II (m. 13) causes an interruption in Piano I, and this interruption (the eighth-rest) from the first draft changes into a delay (the slurred eight-note) in the published version (compare **Ex. 10, A/1.** and **Ex. 10, B/1.**). The effect is better than the use of a rest. The delay in mm. 13-14 foreshadows the syncopated motive appearing in m. 15 in Piano II (**Ex. 10, B/3.**). This ”reaction” is a developing idea - a typically Bartókian miniature evolution helps the piece to live and change.

The next example (**Ex. 11**) also facilitates insight into Bartók's creative thinking. Between mm. 217-223, Bartók's goal is to keep the balance between the two piano parts. The first draft (**Ex. 11, A/1.**) contains pencil revisions indicating that the composer decided to exchange melody and accompaniment between the two parts. The original plan was to integrate both piano parts in a more homophonic setting (**Ex. 11, A**, mm. 218, 219, 222); with the revision, melody and accompaniment are clearly profiled to alternate stereophonically between the two pianos (**Ex. 11, B**). In the final version, the two piano parts exchange roles in every second measure. To achieve this effect, Bartók made the necessary corrections in the first draft, including the added scale-like accompaniment (**Ex. 11, A/2.3.4.5.** and **Ex. 11, B/2.3.4.5.**) and six circled measures (**Ex. 11, A/1.**), which should be played only by Piano II. These corrections show us that, at this point in the piece, Bartók had more ideas, but he was very selective and tried to find the best way to balance the two pianos. The climax is equally divided and enjoyed by all players: Piano I partnered with the second percussionist (xylophone) and Piano II united with the first percussionist (timpani) (see **Ex. 11, B**).

I refer to the next change as level 1/D, whereby notes are added to the later version. I exclude doublings of pre-existing lines. In mm. 16-17 in the PB75FSS1 draft, there are added notes in Piano II (**Ex. 12, A/1.** and **Ex. 12, B/1.**). I propose that Bartók filled in Piano II in order to intensify the crescendo to the triple forte in m. 18 (**Ex. 12, B/2.**). The added notes (chords) in Piano II thicken the texture by moving together with Piano I's chords and naturally increase the dynamic level and harmonic density towards the climax (**Ex. 12, B/1.**). In mm. 16-17, the static Piano I repeats the same motive three times (**Ex. 12, B/3.**). In the initial version, Piano II

supports the Piano I with motoric music of a similar character (mm. 16-17, **Ex. 12, A**). In the later version the role of Piano II is changed. Now, Piano II presents a small developing idea, a three note motive, always arriving on the same interval, C#-G, but reaching it from different directions (**Ex. 12, B/4.**).

My next example (**Ex. 11**) has already been discussed in a different context. **Ex. 11** has added notes in each piano part. These notes change the roles of each piano part. Whenever one pianist plays the melody, the other is accompanying. Before m. 218 in the draft there is an annotation (**Ex. 11, A/2.**), which also appears under mm. 219-222 (**Ex. 11, A/3.4.5.**). The parallel-third motion in scales fills up the original melody. For instance, the melody of the upper line in m. 218 is: C#-C-G-F#-D, while the pencil annotation presents the same notes but elaborated as follows: C#-C-B-A-G-F#-F-Eb-D. The same phenomena can be observed in mm. 219-222.

In the following paragraphs, I examine both the preceding (mm. 326-331, **Ex. 13**) and following phrases (mm. 332-352, **Ex. 14**) surrounding the single-line sketch of the unpublished melody in the draft on page 16 (**Ex. 13, A/2.** and **Ex. 14, A/2.**). In the manuscript, the line in pencil – the fugue subject in inversion starting on B – is interpolated between two important musical sections: the transition (mm. 326-331) and the fugue subject itself (mm. 332-352). **Ex. 13, A** shows the six measures (mm. 326-332) preceding the added line and **Ex. 14, A/3.4.5.6.7.8.** the following twenty measures (mm. 332-352). In my view, Bartók first toyed with the idea of beginning the fugue with the inversion but then decided to use the subject's original, recto form (**Ex. 14, A/3.** and **Ex. 14, B/3.**).

The repeated B-Eb interval of the sixth in the previous measures (**Ex. 13, A/1.**) inspired the composer to employ the inversion starting on B-D# (**Ex. 13, A/2.**) to initiate the fugue (**Ex. 13, A/3.**). From this short example, we can appreciate the importance of enharmonic equivalence to Bartók as a "linking" element, especially in a transition section. As we know from the published score, the pencil sketch of the inversion is missing and the following line of the same example (**Ex. 13, A/3.**) has to be played by the left hand of Piano II. This way, Piano II

has a great opportunity to lead and exhibit virtuoso technique; perhaps Bartók wished to highlight Ditta Pásztory's contribution to the first performance abroad.

The last example of added notes is from mm. 430-432 (**Ex. 15, A/1.**). The first draft contains added pencil notes and faint crossing-out on these notes in the right hand of Piano II in m. 430: (Gb)-Fb-Gb-Bb-Gb-Fb and (Eb)-Db-Eb-G-Eb-Db the left hand of the same piano part (moving in parallel thirds; **Ex. 15, A/2.**). Perhaps, as in many previous examples, the revision is motivated by the composer's desire to avoid static motoric repetition. The added notes Bb-D-E-F#-Bb-Eb-F (**Ex. 15, A/1.** and **Ex. 15, B/1.**) in the right hand of Piano II continue the thrice-repeated motives in Piano II (**Ex. 15, B/2.**). Starting from m. 422 in Piano II within one slur we find broken diminished chords decorated with sixth interval upbeats. The content of the slur in mm. 422-424 is repeated in mm. 425-427. The third repetition of the motive in Piano II is supplemented by two additional shorter motives (mm. 430-431) under two separate slurs (**Ex. 15, B/1.**). As we see, the crossed-out notes (Gb-Fb-Gb with an added B in **Ex. 15, A/2.**) are simply static repetitions of the last part of the following motive: Bb-Gb-C#-A-E-C-G-Eb-Bb-Gb-Fb-Gb (see Piano II's right hand; mm. 422-424, 425-427, 427-430, **Ex. 15, B/2.**). The newly created short motives in the first draft (m. 432, **Ex. 15, A/4.**) in Piano II beneath the large cross hatching (**Ex. 15, A/3.**) better prepares the Tempo I passage in m. 433: by purposefully avoiding the restlessly repeated notes Bb-Gb-Ab-Gb-Fb-Gb, (**Ex. 15, A/3.**) substituting energetic ascending-scale motions D-E-F#-Ab-A-B (see my annotation on **Ex. 15, A/5.** and **Ex. 15, B/4.**) Bartók creates greater momentum towards the beginning of the coda while avoiding stasis.

Modification in rhythm generates the next type of minor changes (see my rubric 2/A, i. e. altered rhythmic values). Sometimes subtle rhythmic modification is combined with revision of type 2/B (changing meter), which I designate as metric change in this chapter. In mm. 3-11, there are numerous small modifications to the rhythm (**Ex. 16, A/1.2.3.4.** and **Ex. 16, B/1.2.3.4.**). In m. 3, in the first draft, the circling three-note chromatic motive is shifted an eighth-note later in the final version (**Ex. 16, A/1.** and **Ex. 16, B/1.**), and simultaneously moved onto the downbeat. While the first version of the opening (the initial twelve measures) is entirely in 9/8,

the final version presents three measures in 6/8 interpolated into the prevailing 9/8 meter. The first interpolation of 6/8 in m. 4 (**Ex. 16, A/1.**) prepares the second in m. 6 (**Ex. 16, A/2.** and **Ex. 16, B/2.**). This measure surprises the listener with harsh dissonance, fast rhythmic values, and a changed time signature. All of these aspects revert back in m. 7, continuing the previous (mm. 1-5) measures' flow and mood. In the first draft, Bartók writes two eighth notes (**Ex. 16, A/3.**), while in the later version he puts a period after each, making them a little bit slower in m. 8 (**Ex. 16, A/3.**). The original version of mm. 10-11 (**Ex. 16, A/4.**) differs from the later version in two important respects. Firstly, the rhythm of the last motive in mm. 10-11 is quite different, and, secondly, the piano parts are exchanged (**Ex. 16, B/4.**). In **Ex. 16, A/5.**, Piano II's single-line melody (G-F#-C#-A#-D#-F-D) is, in the final version, extended by the slurred G in the right hand (**Ex. 16, B/5.**). In the first draft (**Ex. 16, A/5.**), the placement of the bar lines between mm. 10-11 is not yet decided by the composer, and the beginning of the melody is somehow vague. In the later version (**Ex. 16, B/5.**), the G is longer (two eighth-notes connected with a slur) and begins after two eighth rests, while the first version starts immediately after the bar line.

Sometimes the notation of rhythm can influence articulation, and hence the quality of sound. This statement may be verified in **Ex. 17, A/1.**, where mm. 33 and 35 present chords with shorter rhythmic values than in the later version (**Ex. 17, B/1.**). Here, Bartók employs eighth-notes in both measures instead of quarter notes to indicate the short, nervous character of the first group first section, which starts in m. 32. In Kroó's Guide to Bartók, the following statement describes the technique of articulating these notes: “He [Bartók] discovered the technique of the so-called Bartók *pizzicato*, a percussive *pizzicato* rebounding to the fingerboard with a snap.” While the term *pizzicato* usually is employed in the context of string instruments, we may use it with regard to the *Sonata* as well. The timpani attacks (**Ex. 17, B/2.**) are a kind of pizzicato answered by the pianos’ attacked notes, i.e. their form of *pizzicato*. It is interesting that, in the first draft, Bartók distinguishes mm. 33 and 35 (where he employs eighth-notes) from mm. 37 and 39 (**Ex. 17, A/2.**, where he uses quarter-notes). This contrast clearly profiles the two different phrases: antecedent and consequent. The later version of measures 32-40 eliminates the

rhythmic distinction and unites mm. 33, 35, 37 and 39 (**Ex. 17, B**). In the final version, Bartók employs the accents marked above the quarter notes in mm. 33 and 35 to create the pizzicato effect instead of the previously notated eighth notes (**Ex. 17, B/1.**).

M. 41 is noteworthy in as much as Bartók inserted this measure into the final version. The accompanying Piano II has an ostinato pattern in 9/8 time (**Ex. 18, A/1.** and **Ex. 18, B/1.**). Nevertheless, two measures are coupled, the main accent arriving on every second measure's first eighth beat (**Ex. 18, B/3.**). These strong accents (mm. 43, 45) also coincide with the arrival on the first beat, or important note of Piano I (**Ex. 18, B/4.**). Perhaps these points of emphasis had to be prepared: for this reason, Bartók inserted m. 41 into the first draft (**Ex. 18, A/2.** and **Ex. 18, B/2.**). The eighth-note rest in the final version's m. 41, by interrupting the motoric ostinato pattern (**Ex. 18, B/1.**) for a moment, is a cautious preparation for the “nervously” off-beat entrances of the melody in Piano I.

Bartók wrote 6/8 in m. 46 in the first draft (**Ex. 19, A/1.**). Later this time signature was eliminated; Bartók compressed two measures of 6/8 into one measure of 9/8. In other words, Bartók erased the indicated 9/8 time signature of the second measure by adding its first third to the preceding six-eighth measure. The ostinato pattern starting in m. 46 has a dual meaning in terms of its time signature: the groupings can be understood in two ways; triplets in 9/8 time signature (i.e. three three-eighth-note groupings in one measure, **Ex. 19, A/2.**) or hemiola couplets (four and a half two-eighth-note groupings in one measure, **Ex. 19, B/1.**).

In mm. 84-90, Bartók changed the mechanical sound of the employed rhythm (**Ex. 20, A/1.**) to a more expressive one (**Ex. 20, B/1.**). The composer uses Bulgarian rhythm which employs 2, 3 or 4 groupings of eighth notes. This constantly changing rhythmic pattern is a well chosen companion for the expressive, lament-like melody of Piano I. These rhythmical changes can be examined in the first draft, where Bartók wrote his new ideas in pencil above measures 85, 87, 89 and 90 (**Ex. 20, A/2.**). These rhythmic annotations also change the groupings of mm. 84-90; in the older version each measure had a similar rhythmic pattern, and is motoric in effect

(**Ex. 20, A/1.**), while, the final version employs more flowing, assymetrically additive rhythm: mm. 84-85, 86-87, 88-89 (**Ex. 20, B**).

In some cases, Bartók inserts more measures or notes into the already-existing material. In the first draft between mm. 112-118 there are changed bar lines (**Ex. 21, A/1.2.**). Later, to expand the preparation for the right hand's melody in Piano I (m. 117, **Ex. 21, A**), Bartók doubles originally single measures in the draft. To compare the original (**Ex. 21, A/3.**) and the later versions' lengths (**Ex. 21, B/1.**) see my annotations using brackets. These revisions can be explained, if one bears in mind the tempo change which every performer must accommodate in a very short time period (mm. 115-117, *Piú mosso*); in the published version, all performers can accomplish this tempo modification within a more comfortable time limit.

Through careful comparison of differences in tone-color between the first draft and the final version, we may begin to uncover the reasons for modifications in tone, color and balance. The need to achieve perfect balance, especially between the two pianists, motivates changes in the first draft. Examples are countless, but some of them are worth mentioning.

The octave doublings of the voices in Piano I makes Piano I dominate Piano II. We find in mm. 146-153 (**Ex. 22, A/1.** and **Ex. 22, B/1.**) that each note in Piano I is doubled. In these measures, instead of two voices, Piano I is assigned three voices, while Piano II has only two. This makes the pianist's task even more challenging: instead of two voices (as in the first draft), he has to present three (e.g. mm. 150-151, **Ex. 22, B/1.**). In the older version Bartók writes down the primary melodic voices in these measures: acclivity of parallel sixth intervals in both piano parts (**Ex. 22, A/1.**). From m. 154, six measures before the fortissimo outbreak (m. 160), Piano I's two lines (moving in parallel sixths) are doubled so that there are now four lines running simultaneously (**Ex. 22, A/2.** and **Ex. 22, B/2.**). Notice that the older version had initiated this doubling (two voices per hand) only two measures later (m. 156). Obviously, in the later version, Piano I assumes the leading role with its increased numbers of voices (**Ex. 22, B**). In only two measures (mm. 159-160) is the number of voices equally divided between the two pianos (see mm. 159-160 in **Ex. 22, B**). These two measures should be played with loud

dynamic level (*ff*), preparing the sudden appearance of the second group (m. 161). In my examples, the number of voices is increased, primarily in Piano I (**Ex. 22, B/1.2.3.**). We can witness the following increases in the number of voices: in **Ex. 22, A/1.** and **Ex. 22, B/1.** two voices increase to three. In **Ex. 22, A/2.** and **Ex. 22, B/2.** two voices metamorphose into four voices. In **Ex. 22, A/3.** and **Ex. 22, B/3.** three voices change to four voices. **Ex. 22, A/4.** and **Ex. 22, B/4.** is the only case where the number of voices of Piano II increase (mm. 159-160). They change from three to four voices, reinforcing the passage's strongest dynamics. Consequently the ratio between the number of voices assigned to the two pianos is constantly changing. Generally speaking, in this passage, Piano I is always ahead of Piano II in terms of the number of voices (**Ex. 22, A/1.2.3.4.** and **Ex. 22, B/1.2.3.4.**). Bartók preserves the hierarchy between the two piano's voices by changing their volume.

In the following example (**Ex. 23**), Bartók changed both piano parts' tone-color and dominance by adding and omitting octave-doublings. These measures present alternating melody and accompaniment between the two piano parts: mm. 223 (melody in Piano I), m. 224 (melody in Piano II), mm. 225-226 (melody in Piano I), and mm. 227-228 (melody in Piano II). The syncopated melody and its accompaniment is well balanced between the two pianists in this passage. Bartók added octave doublings to Piano I's accompaniment (compare **Ex. 23, A/1.** to **Ex. 23, B/1.**). This correction connects the octave-doubled melody of m. 223 and the accompanying two chords of m. 224. In the following measures (**Ex. 23, A/2.** and **Ex. 23, B/2.**), Bartók omitted Piano I's octave doublings. This change logically connects both two-measure groupings by associating the low register's dark tone-color in both pianos: in mm. 225-226 Piano II presents the accompaniment in its low register, while in mm. 227-228 Piano I does the same (**Ex. 23, B**). The two-measure groupings metamorphose back to one-measure divisions in **Ex. 24**. In those three measures, the melody is framed by a familiar rhythm, an ostinato pattern.

I refer to the next change as level 3/B, whereby Bartók omitted doubled or tripled notes (e.g. octave-doubling) and reduced them to single notes. It is difficult to determine the reason for omitting doubled notes. Perhaps Bartók tried to avoid monotonous repetitions or sought to

build tension by gradually increasing the number of doublings. An earlier example (**Ex. 1, C/1.**) shows that the right hand of Piano I is constantly repeating the same motive in octave-doublings (**Ex. 1, C/1.**, first two measures); by contrast, the published version omits the octave-doublings of the same motive (**Ex. 1, B**). Thus, as the result of the revision, Piano I introduces a single line played with two hands in mm. 26-27. Later, in mm. 28-30, the right hand of Piano I doubles itself by octaves. Finally, the same player moves up by an octave higher altering its register (**Ex. 1, B**, m. 31). In the first draft there is no such manipulative tension-causing effect (**Ex. 1, C**).

Generally speaking, by doubling a melody or other musical material, Bartók increases tension. This technique can be demonstrated in the following example (**Ex. 25**). The leading melody in the older version's Piano II is "orchestrated" as descending triple octaves (**Ex. 25, A/1.2.3.**). The first phrase, mm. 406-408 (**Ex. 25, A/1.**) is continued by the second in mm. 408-410 (**Ex. 25, A/2.**), while the third closes the line in mm. 410-413 (**Ex. 25, A/3.**). These three phrases are not yet clearly developed in the older version (vague pencil marks, corrections). Only in the published version (**Ex. 25, B/1.2.3.**) is there a clear development of the doubling: the first phrase features falling sixths with octave-doubled upper voices on each eighth note (**Ex. 25, B/1.**), the third phrase presents octave doubled thirds (**Ex. 25, B/3.**), while the second phrase provides a logical link between the first and third through its mixture of both procedures (**Ex. 25, B/2.**). In the first draft, it seems that the creation of the second step (the hybrid form) causes the most problem for the composer (**Ex. 25, A/2.**).

Most of the examples found in the movement involve register changes, which I designate level 3/C. For instance, comparing the first draft and the published version of mm. 15-16, 22 (**Ex. 26, A/1.2.** and **Ex. 26, B/1.2.**), one finds the same melodies but they are assigned to different registers. Primarily, one hand's register is shifted. Here, it is difficult to intuit the purpose of Bartók's corrections. Probably, these changes developed in Bartók's mind gradually as he played the piece several times and sought to facilitate the performer's task.

Level 3/D involves added percussive parts. In this connection, it is noteworthy that the first draft does not include the Tam-Tam, an instrument added in the published version (**Ex. 27,**

A). The later added Tam-Tam beats support the pianos' material, giving a special character to the whole piece (**Ex. 27, B/1.**). In mm. 14-18, all Tam-Tam beats have to be played in the same moment as Piano I's F#-B#, A#-E and Piano II's C#-G dyadic chords. The sound of the Tam-Tam is used here to reinforce the sonority of the simultaneously played three tritones by the two pianos.

The following example starts at m. 41 and extends several measures (**Ex. 28, A** and **Ex. 28, A**). There is no indication in the first draft that Bartók planned to employ side drums in mm. 41-42 (**Ex. 28, A**). Later, in mm. 45, 47, 49 there are only two letters: *s.c.* or *c.c.* showing, that the side drums are to participate in these measures (**Ex. 28, A/1.2.3.4.5.**). It is interesting to note that Bartók uses only one special rhythmic formula (**Ex. 28, B/1.2.3.4.5.6.7.**) in the published version, which is based on the first group's initial first section (beginning in m. 32). The side drum alternates this rhythmic ostinato between the two options: side drum with snares and side drum without snares (**Ex. 28, B/1.2.**, **4.5.**, **6.7.**). As will be discussed in Chapter 4, by keeping the first group first section's rhythm alive in the percussion, Bartók makes clear that this music is still part of the extended first group. Thus, the addition of the side drum part here functions to clarify the form.

My last example of changed percussive parts is provided by m. 239, where Bartók uses the same rhythmic pattern mentioned in the previous example (**Ex. 29. A/1.**). It is very important to point out that there are two versions of m. 239 in the first draft. The first version is on page 12, while the later version of the measure is on page 37 of PB75FSS1. The previously mentioned rhythmic pattern can be found only in the first version (**Ex. 29, A/1.**), while the later version eliminates the side drum's role (**Ex. 29, A/2.**). Perhaps the changed version is less demanding from the performer's view.

The final level of change is labeled as 3/E in my chart that explores the exchanging roles of Piano I and Piano II. Probably the piano parts were shifted for the same reason that the registers were changed as mentioned in the previous paragraph. During the rehearsals and numerous performances, Bartók probably decided to balance the two piano parts.

In the following examples it becomes apparent how Bartók altered the two pianos' roles. For instance, to exchange the two piano parts in m. 6 was a very logical idea. Looking at the first draft, Piano II after the *pianissimo* mysterious melody had to jump on the *sforzato* D (**Ex. 30, A/1.**). In the published version, Piano I, after having two eighth rest, is able to anticipate the great eruption in m. 6 (**Ex. 30, B/1.**).

At first glance it seems that Piano I has the leading role in the whole introduction (**Ex. 31**). However, both piano parts have the same importance and Piano II, in the thundering measures, (mm. 6 and 10) presents unusual virtuoso passages whose character is totally different from Piano I's material. Another example from the first movement demonstrates the perfect balance between the two keyboard players: mm. 217-223 (**Ex. 11**). In the published version each pianists has to participate with the same intensity in every other measure. Together, they fulfill the melody.

Major Changes

The last and longest example (**Ex. 32, A** and **Ex. 32, B**) of this chapter presents two versions of the development's last part. This part originally contained fifty measures, whose length shrank to forty five measures in the published version. The systematic symbol for each first staffs of **Ex. 32** is PB75FSID1ID3 (this example is 4 pages long, therefore every page's first staffs have the same symbol).[47] Bartók crossed out these pages from the manuscript, thus **Ex. 32, A** has criss-cross symbols all over, which I did not eliminate. I choose to present this source- even with these cross marks, because it is a clearer copy of the older manuscript, which is originally located on pages 12-14 of the first manuscript, PB75FSS1). Consequently, the reader is able to compare the two versions more easily.

The second staffs of **Ex. 32** are measures 229-273 of pages 28-34 from the published version (**Ex. 32, B**).

The development section's last fifty measures' function is one of the most important issues in the first movement. Their role is to connect two great sections of the *Sonata for Two Pianos and Percussion*: the development and the recapitulation. After examining and comparing the first version (**Ex. 32, A**) and the second, later version (**Ex. 32, B**) of measures 229-273, it becomes perceivable, that several differences exist. Not only their length, but their function undergoes a metamorphosis.

In Somfai's book on Bartók's compositional concepts, there is a shorter study of the altered version of the transitional section.[48] The author believes that the changed version is better and fits more into the fabric of the surrounding material. The same source states that Bartók and his wife performed the piece with the older version about ten times. He changed

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[47]See footnote no. 44. for codes.

[48]László Somfai, *Bartók Béla kompozíciós módszere.* (Béla Bartók's Composition, Concepts, and Autograph Sources) (Budapest: Akkord, 1996), 196-197.

those fifty measures afterwards (or maybe took notes earlier, when they still were performing it).[49] Somfai made a table of the comparison of measures 229-273. In his opinion, the older version of the transition section appears without any preparation and does not establish a stable basis for the upcoming recapitulation.

In the following paragraphs I compare the first draft to the published version, dividing them into ten phrases. The first phrase of the first draft consists of five measures (mm. 198-202, **Ex. 32, A/1.**). The published version of the same phrase is simpler and shorter: it includes three measures, and the two pianists' roles and importance are more equally divided (mm. 229-231, **Ex. 32, B/1.**).[50] The first draft begins with Piano II's motive (**Ex. 32, A/1.**). This motive and the condensed imitation between the two pianos is very similar to the last phrase of the published version (mm. 267-273, **Ex. 32, B/10.**).

The first draft's syncopated motive is divided between the leading Piano II and that the echoing Piano I (**Ex. 32, A/1.**). In the published version (**Ex. 32, B/1.**), the bar lines are more defined and the pianist' octave-doubled motives start on each measure's first beat as follows: Piano I starts in m. 229 on D, then in the following measure Piano II continues the sequence on F# - repeating the same motive. Piano I finishes the phrase, starting on G and answered by Piano II in the same measure (m. 231). This "early" answer causes tension; perhaps that was one of the reasons for its existence. It fits better into its surroundings: it prepares the next section of stubborn repetitions (from m. 232). A similar way of preparing tension happens in a different part of the movement: six measures before the recapitulation present similar matter (mm. 267-273, **Ex. 32, B/10.**).

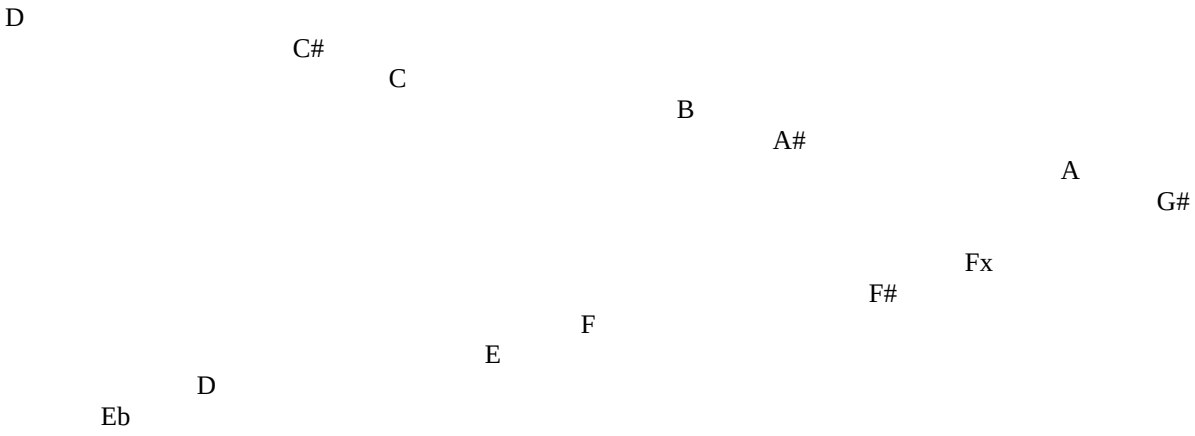
The next phrase embraces seven measures (mm. 203-209, **Ex. 32, A/2.**). These measures are akin in both versions, though the later one has some added notes (C#, B#). While the first

[49]There is a copy of the first version of the transition section - dedicated to János Sólyom on the 18 June, 1939. Somfai supposes, that the Bartóks had played the older version ten times by then.

[50]Bartók named the first measure of the Allegro molto (m. 32) passage number 1. This way, there is a 31 number difference between the two versions: e.g. m 198 - old version contra m. 229 - new version.

draft's Piano II repeats the octave-doubled D# and F# (mm. 203-205, **Ex. 32, A/2.**), the later version colors it with added C# and B# (mm. 232-234, **Ex. 32, B/2.**). The D# is played simultaneously with C# and the F# played with B#, causing a kind of tension-relief effect (C# leads to B# which is enharmonic with C). These added notes make Piano II's chords more dissonant.

The following short phrase of the first draft (mm. 210-211, **Ex. 32, A/3.**) transforms into a three-measure long phrase in the published version (**Ex. 32, B/3.**). Bartók rejected the leading C# to D idea (m. 211, **Ex. 32, A/3.**) by exchanging it into D-G#-D tritonal relation (m. 239-242, **Ex. 32, B/3.**). A visible and complex line connects D and G# in the published version; in mm. 239-242 the third eighth beat on D creates a funnel-like melody: D-Eb-D-C#-C-E-F-B-A#-F#-Fx-A-G#. This apparent line is organized as follows:

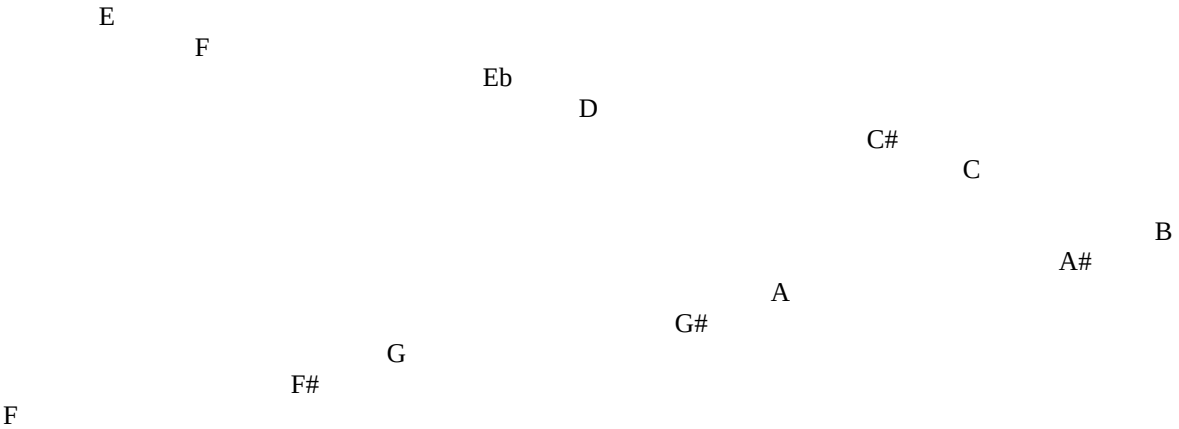


The distance between each eighth-note couple decreases: D ascends to Eb by a major seventh. This interval shrinks to a minor second interval, whereas the A descends to G#. The melody's last note (G#) leads back to the starting point, D (m. 242) adjusting the D-G#-D symmetry. Several scholars describe the above demonstrated melody as an example for

geometrical construction. Bartók produced numberless melodies of horizontal, rising, falling, expanding and contracting nature. The example is a visible funnel-like motive.

The rhythmic ostinato performed by the side drum is omitted from the published version (compare **Ex. 32, A/3.** and **Ex. 32, B/3.**). This measure is not the only one where Bartók eliminated the first group first section's typical rhythm. Nobody found any of the previously inserted, typical rhythmic patterns in the published version (compare **Ex. 32, A/3.** to **B/3.**, **A/6.** to **B/6.**, and **A/10.** to **B/10.**). Interestingly, this returning motive, based on a typical rhythm was omitted. Perhaps, the omission of the percussion let the pianos drive back to the recapitulation without any distraction (**Ex. 32, A/10.** and **Ex. 32, B/10.**).

The two-measure long phrase that follows up the line of the previous phrases (**Ex. 32, A/4.** and **Ex. 32, B/4.**), has exactly the same content in both versions. Subsequently, every phrase is different. First of all, the difference in **Ex. 32, A/5.** and **Ex. 32, B/5.** is that, the first draft has two measures, while the published version doubles it (the length is doubled, but the content is different). The funnel-like melody reappears (mm. 244-247, Piano II) in a transposed version: F-E-F-F#-G-Eb-D-G#-A-C#-C-A#-B:



In **Ex. 32, B**, both funnel-like melodies were vibrating between two poles, a tritone apart by two notes: in mm. 239-241 (D-G#) and in mm. 245-247 (F-B). Surprisingly, the direction of

the first funnel-like motive and the second one is different; the funnel-like motive of mm. 239-241 initially steps down, while the funnel-like motive of mm. 244-247 moves up.

The following two phrases (**Ex. 32, A/6.7.** and **B/6.7.**) have different thematic materials than their originals in the first draft. **Ex. 32, B/6.7.** employ eighth measures (2x4) in canon technique: both hands of Piano II in **Ex. 32, B/6.** present a three-note motive, moving in opposite directions: left hand (F#-E#-D#) and right hand (G-Ab-Bb). On the contrary, the first draft has more percussive instruments and a kind of reminiscence of the aforementioned funnel-like motive (**Ex. 32, A/6.7.**, mm. 217-220, Piano II). The published version stubbornly repeats the same three-note motive (**Ex. 32, B/6.**), after four measures, it is transposed up by a perfect fourth (**Ex. 32, B/7.**). The original measures of this phrase (**Ex. 32, A/7.**) present a less active Piano II - using held notes or chords (mm. 217-219) and even a two measures-long break is inserted into mm. 221-222 (**Ex. 32, A/7.**).

Ex. 32, A/8. and **Ex. 32, B/8.** is a twice two-measure long phrase. Both versions of this phrase show visible motions of increasing intervals (opening-closing motive). The first entrance of the opening-closing motive in the first draft is the simultaneously played G#-A minor second interval of Piano II, opening to D#-D major seventh interval in m. 226. The second repetition of the motive begins on D-D#, a tritone lower, naturally opens to A-G# in the next measure (m. 228). The published version instead, of starting on the G#-A interval, is transposed down by a perfect fourth, starting on D#-E (m. 256 in **Ex. 32, B/8.**). The motive lasts two measures (mm. 256-257) and repeats its first half after a measure interruption (m. 258) in m. 259. The inserted one measure recalls the three-note motive of m. 248. In the first draft we cannot find any inserted material but the twice repeated opening-closing motive (**Ex. 32, B/8.**). Getting close to the recapitulation, the rhythm of the opening-closing motive prepares the reappearance of the first group first section (mm. 256-257, 259 in **Ex. 32, B/8.**). This special rhythm is presented only by Piano II.

The last phrase (**Ex. 32, A/9.** and **B/9.**) brings several differences before the newly created transition section (**Ex. 32, A/10.** and **B/10.**). The four measures of the first draft employ

the three-note motive (mm. 229-230) and a constantly repeated G#-A notes (mm. 231-232, **Ex. 32, A/9.**). Opposed to this, the published version (**Ex. 32, B/9.**) has more anxiety in both piano parts; Piano I leaves the worn out *perpetuum mobile* ostinato pattern by changing its rhythm and notes (**Ex. 32, B/9.**, m. 261 four eighths notes per beat, starting on D), while Piano II becomes agitated. The two percussions (absent in the first draft) join these two measures (see the xylophone and the timpani parts in mm. 260-261). The timpani's role has become more crucial since it directs from the trebling G-D bass (mm. 260-263) to the pulsing Eb at m. 264.

The first draft's last part (**Ex. 32, A/10.**) displays fifteen measures before the bursting recapitulation. The converted transition is much shorter in the published version; it consists of ten measures (**Ex. 32, B/10.**). It is worth introducing both versions separately because they appear to be completely reformed (**Ex. 32, A/10.** and **B/10.**).

The first draft (**Ex. 32, A/10.**) delineates a pianissimo section with unison melody. The steadfastly circulating melody shared by the two pianists makes us believe that there is only one piano player with the timpani's perpetual G oscillation. This melody is often advanced in doubled octaves played by one hand of the pianist (mm. 233-237), later doubled octaves in both hands of both pianists (mm. 238-241). The second part of this transition section is still a unison melody, but with staccato touch and increasing dynamic level. Two things are recurring: the staccato B-Db-F# chord alternated between Piano I and Piano II with the timpani's typical rhythmic ostinato. The later one awakes the syncopated rhythm of the first group first section (see m. 33 in **Ex. 17, B**).

The published version (**Ex. 32, B/10.**) deviates in several points from the first draft. After considering both versions one discerns that the first draft has two greater parts (mm. 233-241, 242-247, **Ex. 32, A/10.**), while the published version is rather one unit. The only place where it may be divided is m. 270, whereas the vibrating Eb changes to Bb in the timpani part (**Ex. 32, B/10.**).

The improvisatory-style melody performed by Piano II indicates the beginning of the published version's transition (m. 264). After three reappearances of the analogous chromatic

line: C-C#-D-E-D#, Piano I enters on F (m. 267). From this point both pianos imitate the same motive, except each time starting on a different level (**Ex. 32, B/10.**, mm. 266-273). The chromatic motive is transposed up by perfect fourths, connecting C to G.

Why is the later version a better version? Why did Bartók change the character and the key of these measures? The following chart lists both versions (**Ex. 32, A/10.** and **Ex. 32, B/10.**) in different perspectives:

	First draft (mm. 233-247) **Ex. 32, A/10.**	Published version (mm. 264-273) **Ex. 32, B/10.**
Length:	15 measures	10 measures
Subdivisions:	[2+3+4]+[2+2+2]	4+3+3
Tempo:	l20/quarter note, *Vivo*	*Un poco tranquillo*
Character:	calm	mysterious
Dynamics:	mostly *pp*, at the end *f*	gradually increasing
Key:	B minor	C minor-major
Bass:	G	Eb-Bb, at the end G
Piano:	equally important PI and PII	leading PII, accompanying PI
Percussion:	rolling timpani, from m. 242 rhythmic ostinato	rolling timpani, no ostinato

The first draft mm. 233-247 is nested in B minor (**Ex. 32, A/10.**). Starting on the leading tone - A#, it gradually proceeds to B in m. 242. One measure later the first chord of B minor (B-D-F#) is colored with a lowered third - Db. Possibly, the lowered third concept later inspired Bartók to make Eb important (flat three in C) in the published version. Perhaps the last four measures of the first draft provided stronger direction towards the appearing recapitulation. Here again, Bartók's creative mind caused the change between the two versions: Bartók did not employ four measures of similar nature in a row; these measures of the first draft increased tension exclusively with the use of advancing dynamics. In the published version from m. 264,

Piano II starts a short chromatic motive that brings us back to the beginning of the whole movement (**Ex. 32, A/10.**). The thematic development activates a chain reaction of increasing power that effectively leads to the energetic recapitulation. This motive is repeated fourteen times between the two pianos (see the arrows in mm. 264-273). The motive never sounds in unison, it acts like a constant line, moving from one piano to the other. A more thorough analysis is provided in the following chapter, including the later version of the transition section.

CHAPTER 3

ANALYTICAL RESULTS

Introduction to the Analytical Approaches

In Chapter 3 my focus will be on the first movement of the *Sonata for Two Pianos and Percussion.* This is not a widely analyzed composition; perhaps its length and complexity do not appeal to scholars. A limited number of analyses have appeared concerning this piece; but more study is needed, especially from the performer's viewpoint. I have employed linear analysis to delineate the main tonal goals - specifically points of arrival and departure in the movement. These analytical results aid the performer's task. Being a performer myself, I found it very useful to go through the entire movement in this fashion. We performers have to understand the function and the meaning of all parts of the music in order to be able to produce a convincing performance.

Moreover, I have combined my own observations with the technique of linear analysis in order to better understand phrase direction and voice leading in the first movement. The first movement is the most difficult for the performers, especially as regards the coordination of the four players.

In the subsequent paragraphs, Allen Forte summarizes Heinrich Schenker's concept of analysis and performance as follows:

> Schenker believed that a composition could be reproduced correctly only if the performer had grasped the composer's intentions as revealed by the score, and if he had developed an aural sensitivity to the hierarchy of tonal values which it expressed . . . Almost all his writings are intended to instruct - in the most "practical" sense of that term . . . it leads stage by stage to an understanding of the tonal work in all of its complexity.[51]

[51]Marury Yeston, ed., *Readings in Schenker Analysis and Other Approaches* (New Haven and London: Yale University Press, 1977), 8.

Therefore, the following passages mainly serve as supportive reading for all performers who wish to understand and perform the complex first movement of the *Sonata for Two Pianos and Percussion*.

In Schenkerian analysis there are three main levels of structure: foreground, middleground, and background. In traditional tonal music (as analyzed by Schenker himself) the background is the temporal projection of the tonic triad. However, in the first movement of Bartók's *Sonata* (**Ex. 1, A**), the primary, or fundamental sonority is not the simple triad, but the C major-minor tetrachord C-Eb-E-G, which may be split into two triads, major (C-E-G) and minor (C-Eb-G). The upper voice projects the triad in the form of a descending linear progression, which, in the case of this first movement, spans the lower triadic third E or Eb to C. Schenker marks this kind of succession in the *Urlinie*, or fundamental line, with numbers and stemmed half notes (see the soprano line - Eb, E and C in **Ex. 1**). The triad is projected by the bass, which outlines the triadic fifth, the tonality-defining interval. Schenker calls this fundamental bass motion *Bassbrechung* (bass arpeggiation). The essential bass notes are represented with open noteheads. The background sketch shows that this succession occurs consecutively only in the last part of the movement (**Ex. 1, B**, from m. 438).

The more detailed analysis - that of the middleground - fills in the background with the most important tonal progressions. The following paragraphs describe my middleground graph (**Ex. 2**).

The Sonata Form

The movement is in sonata form including exposition (mm. 32-174), development (mm. 175-273), and recapitulation (mm. 274-443). The sonata form proper is preceded by an introduction (mm. 1-31). The function of the introductory material can be explained as another formal element within the larger structure of the sonata; it is the first segment of the four part sequence which consists of slow-fast (first movement), slow (second movement) and fast (third movement) segments. Thus, the introduction stands on its own, making it possible for the analyzer to separate it from the fast section of the first movement.

The tempo changes shed light on the unity of the sonata, which comprises two couplets of movements. The slow introduction gradually accelerates until the *Allegro molto* (m. 32). The tempo in mm. 1-31 indicates that the eighth note equals 70, and in m. 32 the dotted quarter note equals 132, more than five times faster:

$$1/8 = 70 \quad < \quad \frac{3/8 = 132}{3} = 396$$

396:70 =5.6571428571 times faster

However the slow second movement exhibits a contrast in the matter of tempo change with the fast third movement: there is no gradual tempo change (in the second movement the quarter note equals 60, while in the third movement the quarter note equals 122-132). Examining all four tempos, one realizes the following ratio in regard to the quarter beats (naturally the eighth beat equals 70 will become 35) and eighth beats (a dotted quarter is equal to three eighth beats):

	Introduction	Allegro molto	Second movement	Third movement
eighth beat:	35	198	60	132

quarter beat:	70	396	120	264

If we take the lowest number of each line as 1 the following ratio stands between the four parts:

Introduction	Allegro molto	Second movement	Third movement
1	5.65	1.7	3.77

These numbers present an approximate ratio: 1/6/2/4.

The Introduction

The first thirty-one measures are not only a long drawn-out preparation to the first group first section of the exposition but intimate the hectic and excited mood of the whole movement. Roy Howat states that Bartók described the opening of the *Sonata* to his students in terms of creation archetypes, "of a cosmos evolving out of formlessness and timelessness,"- reflecting Bartók as a lover of nature.[52] Its structure is based on repetitions (e.g. "coiled motive" in mm 2-5, **Ex. 3**). In many cases, such as in the previous example, the bar lines are not the clearest borderlines; hence,"the beat is shifting by one note on each repetition, intensifies the sense of a nascent form gradually uncoiling."[53] Therefore we have to focus more on the motivic appearances between the bar lines.

Examining the first eighteen bars (**Ex. 3**), one notices the importance of the number three. Bartók often repeats the same motive or measure three times, but in the third statement he changes it in some way. Kárpáti simply calls it, "tiny bar form: A-A-B [. . .] the third unit actually 'closes' by 'opening' the melody."[54] This focus on the third repetition brings to mind folk music, which is closely related to folk tales. The number three appears in almost every Hungarian folk tale: there are always three sons, three daughters, three kings, three princesses, three paths, three doors, three castles, etc. In Hungarian folk tales the third son, third daughter, etc. will have special significance or mysterious powers. In many cases Bartók uses this

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[52]Roy Howat, "Masterworks (II): Sonata for Two Pianos and Percussion" in *The Bartók Companion*, ed., Malcolm Gillies (Portland: Amadeus Press, 1994), 317. On page 329, the author reveals his sources - conversations with people who spoke with Bartók personally (e.g. Louis Galánffy). Another source verifies the same fact: Roy Howat, "Review-Article: Bartók, Lendvai and the Principles of Proportional Analysis" in *Music Analysis* 2:1, 1983. Galánffy's former pupil John Aielli of KUT Radio, University of Texas at Austin.

[53]Ibid., 318.

[54]János Kárpáti, *Bartók's Chamber Music* (Bartók's Chamber Music) (Budapest: Zenemükiadó, 1976), 403.

mysterious number in his "narratives."[55] Almost all of the time he accentuates the third repetition (e.g. in the *Sonata* mm. 1-6, **Ex. 3**).

Several scholars make different observations of the first motive, which is constantly repeated in the first eighteen bars of the introduction (**Ex. 3**). The nine-note motive (its first appearance is in mm. 4-5) is one of the most perfect examples of Bartók's creative mind. This seemingly simple motive elicited comments from almost every scholar, guessing about its implications. Kárpáti acknowledges the importance of this passage (the initial eighteen bars) in his exhaustive analysis of this work. He classifies the first nine eighth notes of the melody by three; F#-E#-A, G#-D#-E, G-D-C#, so the small motivic units, "divide up in a logical succession, each consisting of a contracting and an expanding element, and furthermore linked by progression in a variety of directions."[56] He suggests the consideration of the survival of the Bach tradition and thinks in two layers of polyphony: lower and upper layers within the homophonic line. In the case of two layers, if we were to interchange the two middle notes of the lower layer of the repeating "coiled motive," it would outline a descending chromatic scale, which is the main character of the common type of passacaglia theme.[57] The previous paragraph described the importance of the number three. I agree with Kárpáti, who divides up the nine-note long motive into three "seeds" (three times three notes equal nine).

Lendvai suggests that the motivic appearance in canon technique employs polar reactions; for example, Piano I's leading motive starts on F# (m. 4), while Piano II brings the same motive - in a canon technique - two eighth notes later, starting on C (m. 5).[58] In Lendvai's

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[55]The number three has a special role in the following Bartók stage works: *Duke Bluebeard's Castle*, three former wives, living behind the last door. *The Miraculous Mandarin*: three forces of evil: thugs, three dances of seduction, three murderous attempts from the gang.

[56]János Kárpáti, *Bartók's Chamber Music* (Bartók's Chamber Music) (Budapest: Zenemükiadó, 1976), 410.

[57]Ibid., 410.

[58]Ernö Lendvai, *Bartók költöi világa* (Bartók's Poetic World) (Budapest: Akkord, 1995), 142.

theory, F# and C belong to the diatonic system's tonic axis. The duality of question and answer (canon technique) is an active power in the initial eighteen measures. The second time, the axis moves to the dominant keys; Piano I starts on G (m. 8), while Piano II's answer is on Db (m. 9). Logically, the last and third appearance of the motive happens on the subdominant axis: Piano I starts on Ab (m. 12) while Piano II's answer is on D (m. 12).

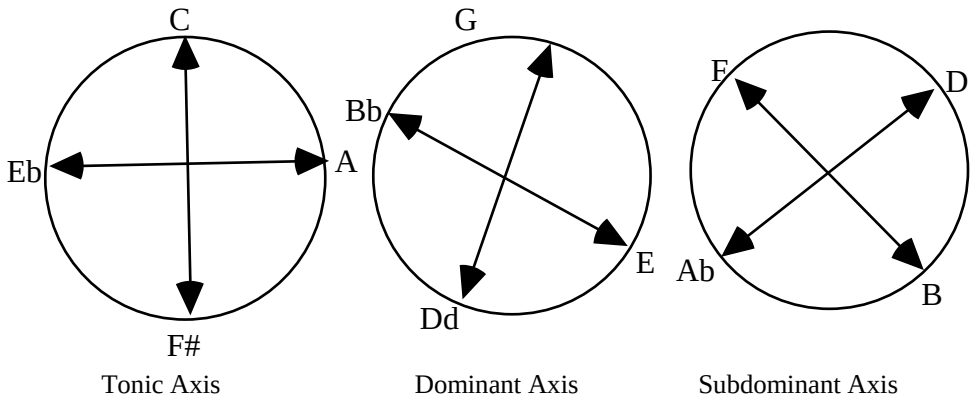

Fig. 1
Lendvai's Axis System

After a deep examination of the first nine notes of the coiled motive it becomes apparent that the cleverly created line of chromatic notes (mm. 4-5, Piano I) can be grouped in several other ways. As shown below, the following possible groupings are revealed by the music:

A G# G

F# E# D# E D C#

If we substitute the chromatic notes with numbers, the following succession emerges:

9 8 7

6 5 3 4 2 1

(1=C#, 2=D, 3=D#, 4=E, 5=E#, 6=F#, 7=G, 8=G#, 9=A)

In the lower horizontal line, there is a note change in the middle of the motive: D# and E (3-4). If it were in reverse order (E-D#), we would speak about two levels only, upper (A-G#-G, 9-8-7) and lower level (F#-E#-E-D#-D-C#, 6-5-4-3-2-1). The upper level of the coiled motive is: A-G#-G (9-8-7). The middle level brings the same descending succession by semi-tones but starting a minor third lower on F#: F#-E#-E (6-5-4). The aforementioned note change causes the multiplication of all levels. Therefore there is the third, lowest level: D#-D-C# (3-2-1) which enforces again the existence of the mysterious number three. We can see that this number is constructed even into the smallest cell of the music.

9 8 7

6 5 4

3 2 1

The imaginary line of the three levels (see above three horizontal lines) suggests that a single melodic molecule is constructed of three spirals cleverly attached together. All of the three levels have interruptions so that the next level can be introduced (see above the interrupted lines of 9-8-7, 6-5-4, and 3-2-1).

Different ways prevail to approach these couplets of notes at the entrance of the dark first movement (mm. 2-5, **Ex. 3**). Another possible way is to group them as couplets as the smallest cells of the motive. In m. 2 the "coiled motive" is a spiral of three eighth-note couplets: F#-E#, A-G#, D#-E. This motive is repeated three times within mm. 2-5. As compared with the first

presentation of the motive, the second is its double octave version in the right hand (m. 3), and the third opens out the melodic line (mm. 4-5), which previously closed on G (m. 2 and m. 4), now allowing for the possibility of continuation F#-E#, A-G#, D#-E, G-D-C# (m. 5). This third presentation of the chain of repeated motives (m. 5, when the melody opens up) returns some measures later (m. 8), but in a transposed version: G-F#, Bb-A, E-F, Ab-Eb-D. After a short interruption the same motive returns in m. 12, but now everything is changed; it is played a semitone higher and its direction is the opposite, namely, the inverted version of the "coiled motive": Ab-Bbb, F-Gb, Cb-Bb, G-C-Db. The always changing "coiled motive" appears several times within the first eighteen measures (**Ex. 3**). Their relationships can be characterized as follows (the chart presents Piano I's material, especially its highest soprano line):

measures	*motive's appearance*	*starting point*	*character and ambitus*
m. 2	1.	F#	- basic motive, (F#-E#, A-G#, D#-E, G)
m. 3	2.	F#	- double octave version in the right hand
mm. 4-5	3.	F#	- double octave version in both hands - it opens out the melodic line - possibility of continuation: (F#-E#, A-G#, D#-E, G-D-C#)
mm. 8-9	4.	G	- trans posed version - it opens out the melodic line - possibility of continuation - moving by parallel sixths in both hands

			(G-F#, Bb-A, E-F, Ab-Eb-D)
m. 12	5.	Ab	- transposed, inverted version - moving by the combination of parallel sixths and octaves in the right hand and by parallel thirds in the left hand (Ab-Bbb, F-Gb, Cb-Bb, G-C-Db)
m. 13	6.	Ab	- transposed, inverted version - moving by parallel tritones in both hands (D-Eb, B-C, F-E, C#-F#-G)
m. 14	7.	G#	- transposed, inverted version - moving by the combination of parallel tritones and octaves in both hands - broken motive (G#-A, E#-F#, B-A#, G)
mm. 14-15	8.	G#	- transposed, inverted version - moving by the combination of parallel tritones and octaves in both hands - broken motive (G#-A, E#-F#, B-A#)
m. 15	9.	G#	- broken motive (G#-A, E#-F#, B)
mm. 16-17	10-11-12.	G#	- broken motive

- three times repeated

(G#-A, E#-F#)

One should mention Bartók's repetition technique in the *Sonata*. Specifically, in the introduction of the first movement, repetition serves more than one purpose: it produces tension within the convoluted, "coiled motives" and it also plays an important role in preparing new sections. Using the following three techniques of repetition, Bartók employs the same motive within eighteen measures while making very slight changes. The following three examples illustrate how focused and parsimonious he is with a single motive:

1. When Bartók repeats the same motive or measure three times, in the third repetition he generally makes a small change. This happens in the first five measures. After the initial five-measure phrase, there are two shocking cymbal beats in both m. 6 on D and in m. 10 on E. On the one hand, these outbursts crucially interrupt the stubborn motivic repetitions; but on the other hand, they connect the soprano's F# (m. 2) with G (m. 8) through D (m. 6, V/G) and G (m. 8) with Ab (m. 12) through E (m. 10, #V/Ab). A detailed graph of the introduction is provided in **Ex. 2** (see mm. 1-12).

2. Tension increases when the repeated motive from the second measure is itself restated and transposed a semitone higher (see stemmed half notes in **Ex. 2**, mm. 1-6, the motive is stated on F#, while in mm. 8-10 it appears on G and in mm. 12-14 on Ab).

3. Bartók's other repetition technique can be observed in mm. 14-18. The repeating motive, previously based on Ab in m. 12, is restated G# in this passage: G#-A-E#-F#-B-A#-G (m. 14). Here the repeated motive uses fewer and fewer notes (first appearance in m. 14 seven notes, second appearance in m. 15 six notes, etc.) until it is reduced to four notes G#-A-E#-F# (m. 16). From m. 16 this broken motive (with only 4 notes left) is repeated three times, but in

this case an additional small motive (second half of m. 17) supports the break-out from the *perpetuum mobile* motion.

At m. 18, the upper voice's strong arrival on Bb suggests release from the hypnotic motions that have possessed the previous measures. In this measure, the timpani enters with steady F-B beats. However, the B natural interferes with the strong Bb in the piano part. It is noteworthy that there are three kinds of Bs in this measure: B natural, Bb and Bbb. From m. 21 the B and Bb dissonant conflict is obviously manifested between the two piano parts. The timpani until m. 31 repeats the same two notes as mentioned earlier (F-B). A crucial voice exchange takes part in the introduction; m. 18 presents a Bb in the upper line, while the bass is B natural; these tones will interchange in m. 21 and again in m. 26. In the last voice exchange shown in the example the two voices converge on B natural, while Bb is retained as an active tone in the upper voice (**Ex. 2**, mm. 18-26).

The F# in the timpani part (m. 31), by picking up the F# from m. 1, creates a tonal frame for the introduction as shown in **Ex. 2**. The graph also indicates the stepwise motion in the upper line: F# (m. 2) - G (m. 8) - Ab (m. 12) = G# (m. 14) - Bb (m. 18) - C (m. 33). In the introduction the bass begins and ends on the low F#, a tritone away from the C, which functions as a quasi-tonic for the entire first movement (scale degree 1). Therefore, the introduction not only presents a harmonic idea - the tritonal relationship of F# to C - but foreshadows this relationship in the movement as a whole. In Kárpáti's analysis, "the canon technique of a diminished fifth relationship leaves its mark on the whole first largo section of the introduction."[59] This F#, which can be understood as a lowered dominant (bV) or raised subdominant (#IV) built on the "mistuned" fifth, in the timpani part leads to the first group of the sonata form.[60]

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[59]János Kárpáti, *Bartók's Chamber Music* (Bartók's Chamber Music) (Budapest: Zenemükiadó, 1976), 406.

[60]Ibid., 405. Also the author discusses in chapter six " Tonality and Polytonality -The Phenomenon of Mistuning" (pp. 185-239). Bartók mostly uses perfect fifth imitation when he mistunes the structural framework of

Before undertaking the analysis of the first group we should stop for a moment and consider the role of chromaticism in the introduction. To understand the origin of this type of music one should be acquainted with Bartók's Harvard lectures given in the 1940s.[61] In one of them, Bartók clearly presented his own explanation of chromaticism. The composer confessed that he instinctively developed chromatic melodies (as in the introduction to the *Sonata*) without any artificially made theories. When he was collecting folk songs, he did not find chromatic melodies in folk music except in the territories of Northern Algeria and in Dalmatia (in the former Yugoslavia). He heard recorded Dalmatian songs only after having moved to the United States; but he had known Algerian music since 1913. The chromatic melodies created by Bartók are described as follows:

1. Each melody has a basic note, a quasi-tonic, to which every other note leads. The chromatic notes, D#-E-E#-F#-G-G#-A in m. 2 of the introduction to the *Sonata,* are balanced around F#.

2. The ambitus of Bartók's chromatic melodies becomes wider than in the previously mentioned folk melodies: about an octave, while the folk melodies' range is only about a fourth (5, 6, or 7 semitones). Despite this fact, Bartók in this particular *Sonata* employs the folk melody range: the previously mentioned chromatic notes (from D# to A) in the introduction frame 6 semi tones.

3. The chromatic melodies can be expanded with diatonic notes. Any diatonic step can be added to the chromatic notes' ambitus. Therefore, the character of the original chromatic

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the theme and employs mistuned, mostly diminished fifth imitation when the theme has a traditional - perfect fifth or fourth-framework.

[61]Béla Bartók, *Irásai/1*. (Writings) (Budapest: Zenemükiadó, 1989), 175-178. Three years before his death (1942) he was asked to summarize his art in eight lectures given at Harvard University, in Cambridge. Unfortunately he could give only three lectures because of his weak health. Bartók was very surprised to recognize the similarity between the chromatic melodies in Dalmatia and his own creations. The Dalmatian chromatic folk songs are performed parallel by two singers or players. The distance between the parallel moving melodies is the major second interval (Ibid., 183).

melody can change drastically while preserving a hidden connection with its chromatic prototype. This phenomenon can be examined in mm. 18-31. The chromatic melody slowly develops into a diatonic one; the Piano II has the following ambitus in m. 18-19: G-Ab-Bbb-Bb-Cb- (C)-D-Eb. This melody is suddenly reduced to the following tones: B-Bb with an added F in the timpani part (mm. 21-23). In mm. 24-25, more notes are added: D-G-Ab; interestingly, the G is eliminated in mm. 26-31 so that the remaining notes are the non-chromatic B-D-F-Ab-Bb.

Bartók's specialty is the mixed major-minor chord. Here the (G)-B-D-F-Ab-Bb is basically a dominant ninth chord of C with a G major (G-B-D) and G minor (G-Bb-D) chord combination. This chord is stubbornly repeated as an ostinato with the same syncopated rhythmic pattern. In m. 31, F# is added to these notes to prepare the first group in the exposition. Kárpáti describes this chord as follows:

> But in the last bar of the ostinato section, directly before it bursts into Allegro molto, the F from the timpani rises to F-sharp while in the other parts it remains F. This gives rise to a specific Bartókian dominant chord which does not anticipate a single note from the subsequent chord, the resolution. The F-sharp therefore substitutes for G and resolves in the manner of a leading note to the G of the C major triad, while in the upper parts A-flat does the same from the other side. B and F resolve similarly in the manner of leading notes to C-E, D being relatively neutral as in the traditional dominant chord, while B-flat increases the friction and tension of the leading note, B-natural [. . .] Bartók's specific dominant chord, which in fact unites the functions of a traditional dominant and subdominant.[62]

[62]János Kárpáti, *Bartók's Chamber Music* (Bartók's Chamber Music) (Budapest: Zenemükiadó, 1976), 409.

Exposition

The exposition follows the three-group/three-key paradigm. However, the order of the groups in the reprise is unusual, as we shall see shortly. The first group (mm. 32-40) is anchored in the C tonality. The first section of the first group can be described as a four-part folk-like theme. Antokoletz calls attention to the prominence of the tritone steps at several points in the piece, including the first group. Following the timpani line in mm. 32-34, the F#-C-G constructs a three-note segment of one of Bartók's basic four-note cells. This segment is a symmetrical tetrachord (C-C#-F#-G) and is a combination of two tritones, called "cell Z." [63]

The initial and basic tone is C. The four-phrase folk-like theme (mm. 33-40) gradually expands in ambitus: first phrase, C-Bb-A, minor third ambitus (m. 33); second phrase F-Eb-E-D-C, perfect fourth ambitus (m. 35); third phrase Ab-F#-Eb-Db-B, major sixth ambitus (m. 37); and finally fourth phrase F#-E-C#-B-Ab-G, major seventh ambitus (m. 39).

Mm. 32-40 seem to stabilize the mood and the characteristic rhythm of the first group. The first group's rhythm generally can be described as tempo giusto and the following second group's (mm. 84-90) as parlando-rubato. In his book, *Hungarian Folk Music*, Bartók summarizes his research by categorizing the special rhythms of this style:

> The various stages of the evolution of rhythm may be conceived thus:
> 1. *"Tempo giusto" (*strict) rhythm consisting chiefly of equal values. It is likely that the earliest music arose in connection with rhythmical motions of the human body (work, dancing). No complicated rhythmic pattern could evolve out of primitive elements.
> 2. *"Parlando-rubato rhythm."* In proportion as tunes gradually became independent of the body's motions, the dance-like rigor of the original terse rhythm relaxed. The rhythm of the tunes was then bound to adapt itself to the rhythm of the words; and performers were [en]able to emphasize and prolong single notes. This stage of evolution is illustrated by the old *parlando-rubato* tunes of Hungarians, Slovaks, and Rumanians.

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[63]Elliott Antokoletz , "Organic Expansion and Classical Structure in Bartók's Sonata for Two Pianos and Percussion" In Bartók Perspectives, ed., Elliott Antokoletz, Victoria Fischer, and Benjamin Suchoff. (New York: Oxford University Press, 2000), 82-83. The author also lists his sources on the subject (cell Z): LeoTreitler and George Perle used the term before. All three cells (we will talk about the other two later) were first shown by the author to be part of a larger system in Bartók's music in "Principles of Pitch Organization in Bartók's Fourth String Quartet" (Ph.D. diss., City University of New York, 1975).

> 3. *"Tempo giusto"* rhythm evolved out of the *"parlando-rubato"* method of performance. Many rhythmic patterns originating in this *"parlando-rubato"* method of performance may have become set quantities even in "*parlando-rubato"* performance. Supposing that the tune of this kind comes to be performed *"tempo giusto"* (say, for the purpose of dancing), it will naturally retain the complicated patterns created by *rubato* performance. And the *"tempo giusto"* rhythm marking this third stage of evolution will be far more complex than the original *"tempo giusto"* rhythm, [that]which characterized the first stage.[64]

To learn more about Bartók's explanations on the parlando-rubato and giusto rhythm it is necessary to study his Harvard lectures.[65] In his list, the first important rhythm in the Hungarian peasant songs is the parlando-rubato (declamatory, free) interpretation (second movement mm. 56-65). Often it is characterized with regular measure numbers and the lack of an upbeat and time signature. Perhaps its close relative is the Western European recitative and even the older Gregorian chant.

The second one is the strict, giusto rhythm with the often used 2/4 time signature and regular measure numbers (the third movement of the *Sonata* employs 2/4). This type also can alternate between different time signatures (e.g. 3/4 changes into 2/4). If the tempo signature is solely 3/4 without alternation to 2/4, the origin of the peasant song is definitely Western European. There are several examples in Bartók's music for the use of other time signatures: 5/8, 7/8. In his lecture, Bartók pointed out that there is no significant difference between the alternating 2/4 with 3/4 and the 5/8, 7/8, the 5/8 being explained as the trebling of one of the eighths in 2/4 time measure (third movement, mm. 325-329). The 7/8 time signature is the trebling of one of the eighths in a 3x2/8 time signature. In the first group of the first movement of the *Sonata* we meet the same phenomenon, except the meter is in 9/8. This time it can be understood as trebling of one of the eighths in 4/4 time measure.

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[64]Béla Bartók, *Hungarian Folk Music* translated by M.D.Calvocoressi (London: Oxford University Press, 1931), 16.

[65]See footnote no. 11. However, his fourth lecture was started but not finished. The fourth lecture generally explains the rhythm found in Eastern Europe and its influence on his music. Bartók adds one more type to the above mentioned two kinds of rhythm found in Eastern European peasant songs; the dotted rhythm. The third common rhythmic pattern in Hungarian peasant songs is the dotted rhythm, which is very typical in certain songs.

Ex. 4 enumerates several motivic appearances within the first movement. I designate the descending third progression motive x. This motive and its variants can be found in each phrase of the folk-like first theme in the first section of the first group (**Ex. 4, A**). This theme is composed of four clearly delineated phrases. In mm. 33-34, motive x is part of the descending melody (C-Bb-A), while the second phrase of the folk-like theme presents both motive x (in mm. 35-36, Eb-D-C) and its nested ascending inversion - motive xi (in mm. 35-36, D-E-F). The third phrase of the folk-like theme is an expanded motive x, hence the interval is bigger; it metamorphoses into a major third instead of a minor third (mm. 37-38, Eb-Db-B). The last phrase of the folk-like theme goes a step further; the same motive x is intervalically expanded to a tritone. Since the tritone is a very distinct interval, I shall designate this tritone motive y (mm. 39-40, C#-B-Ab-G). Clearly, the tritone, motive y, functions as an important motive in the work as a whole, especially in the bass. Consider, for example, the introduction and first group, which are based on F# and C respectively.

The *Sonata* is constructed with complicated rhythms. Fortunately they return quite often; hence both the performers and listeners can assimilate them in their complexity and integrity during the course of their repetitions.

The ostinato is probably the most ancient form of repetition known even to the most primitive tribes. It is customary to mention the rhythmic patterns recurring with a barbaric stubbornness - the ostinato principle. Bartók's main observation on Arab music was that almost all of the songs were accompanied with percussion instruments; sometimes in a very complicated rhythm (it is chiefly the varying accentuation of equal bar lengths that produces the different rhythmic patterns). Bartók's music is often characterized as barbaric, perhaps as a consequence of his constant use of ostinato patterns. As in Stravinsky's *Rite of Spring*, the ostinato evokes the dark, barbaric nature of humanity.

In Bartók's *Sonata*, the folk-like first group is an important passage composed in ostinato style. This theme is not the only one representing ostinato in the first movement. In the entire piece the ostinato passages have their own form and tonality. They are part of an important

greater section as a supporting rhythmic pattern as in the folk-like first group and they participate in the *Sonata* as connecting parts (transition and bridge). Stephen Walsh perceives the same feature in his book about Bartók's chamber music:

> It [*Sonata*] enables elements of timbre to be isolated and particularized to the point where they become formative elements of quite unexpected power; it brings rhythm sharply into focus as a thematic as well as [a] locomotive process. [66]

For instance, this stubbornly repeated rhythmic pattern becomes an important characteristic in mm. 32-40, in the first group. In m. 32ff., we can consider the pianos' component of the theme as a four-quarter hemiola superimposed upon the three dotted-quarter notated 9/8 meter. In turn, the hemiola of the hammering chords in the pianos creates syncopated accents against the understood triple meter. Similarly, the dyadic groupings in the timpani part suggest a four-quarter hemiola. Or, if we consider the pattern as 2+2+2+3 eighths in both the pianos and timpani, then we may hear the influence of the "limping" Bulgarian rhythm, which is described by Kárpáti in other terms: "The way the metric division of 3x3/8 switches into a limping, even time clearly justifies the term aksak used by Brailoiu."[67]

It is necessary to interpret Bartók's own writing on this piece considering the form. He was asked to write an introduction to this pioneering work before the première of the *Sonata* in Basel. Bartók prepared the following short program note:

> The first movement begins with a slow introduction in which a motive of the Allegro movement is foreshadowed. The Allegro movement itself is in C and is in sonata form. In the exposition the main theme group is announced, consisting of two themes (of which the second has already been alluded to in the introduction), after which follows the secondary (contrasting) theme. Out of this a codetta develops on rather broad lines, at the end of which a brief reference to the contrasting theme occurs by way of conclusion. The development, after a short transition of superimposed layers of fourths, consists essentially of three parts. The first one, in E, employs the second theme of the main theme group as an ostinato motive, over which the first theme of the main group proceeds

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[66]Stephen Walsh, *Bartók Chamber Music* (London: British Broadcasting Corporation, 1982), 70.

[67]János Kárpáti, *Bartók's Chamber Music* and also see Bulgarian rhythm in Chapter 1, footnote no. 7.

> in the form of imitatively treated interpolations. The second part is in the nature of a short interlude, after which the first part-with the ostinato in G# and inverted-is repeated in a much altered form. In the recapitulation there is no proper closing section; it is replaced by a rather extensive coda (with a fugato beginning) built on the closing theme.[68]

It was Paul Wilson's idea to reconstruct the content of the Bartók program note. He made a chart and then compared it with his own.[69] I would like to add more detailed interpretations to his chart and construct my own analysis built on Bartók's. Bartók's form description is as follows:

Introduction (mm. 1-31)

- motive of the 1st group is foreshadowed (mm. 26-31)

Exposition (mm. 32-174)

- 1st group in C (mm. 32-83)
- 1st section (mm. 32-40) and 2nd section (mm. 41-60)
- the 2nd section has been alluded to in the introduction (mm. 47-48)
- 2nd, contrasting group (mm. 84-99)
- codetta (mm. 105-160)
- 2nd group' s reappearance (mm. 161-174)

Development (mm. 175-273)

- transition of layers of fourths (mm. 175-194)
- 1st part in E employing the 2nd section of the 1st group as an ostinato motive (mm. 195-216)
- imitation employing the 1st group 1st section (mm. 208-216)

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[68] *Béla Bartók Essays*, 417.

[69] Paul Wilson, *The Music of Béla Bartók* (New Haven and London: Yale University Press, 1992), 141-142.

- interlude (mm. 217-231)
- 2nd part in G#, altering the 1st part (mm. 232-273)

Recapitulation (mm. 274-331)

- 1st group 1st section (mm. 274-291)
- 2nd group (mm. 292-331)
- coda with fugato beginning (mm. 332-382)

As we see, Bartók did not give a greatly detailed analysis. There are several questionable points in the chart. Before considering these questions, let us examine the chart based on Bartók's as well as my own formal divisions:

Introduction (mm. 1-31)

name of the formal part	*measures*	*important tones*
- repetition of the coiled motive	(mm. 1-5)	[F#-C]
- interruption	(mm. 6-8)	[D]
- coiled motive	(mm. 8-9)	[G-Db]
- interruption	(mm. 10-11)	[E]
- repetition of the coiled motive	(mm. 12-18)	[Ab-D]
- transition with accelerando in three parts:	(mm. 18-31)	
- 1st part	(mm. 18-20)	[Bb-B]
- 2nd part	(mm. 21-25)	[Bb-B]
- 3rd part, the 1st group of the exposition is foreshadowed in the ostinato pattern	(mm. 26-31)	[Bartókian dominant]

Exposition (mm. 32-174)

name of the formal part, the dominance of each piano part	*measures*	*important tones*
- 1st group 1st section *PI, PII*	(mm. 32-40)	[C]
- 1st group 2nd section *PI*, ostinato in *PII*	(mm. 41-49)	[G]
- 1st group 2nd section *PII*, ostinato in *PI*	(mm. 50-60)	[C]
- 1st group 1st section returns *PI*	(mm. 61-68)	[A, F#]
- transition section, imitation between *PI, PII*	(mm. 69-79)	
- bridge *PI*	(mm. 80-83)	[D]
- 2nd group 1st section *PI*	(mm. 84-90)	[E]
- bridge *PII*	(mm. 91-94)	[F#, D]
- 2nd group 2nd section *PII*	(mm. 95-99)	[Ab]
- bridge *PII*	(mm. 100-104)	[D#, D]
- 3rd group 1st section *PII*	(mm. 105-114)	[B]
- interruption *PII*	(mm. 115-117)	[E-B]
- 3rd group 2nd section, imitation between *PI, PII*	(mm. 117-122)	[E]
- 3rd group 3rd section, imitation between *PI, PII*	(mm. 122-132)	[G-Bb]
- 3rd group 4th section, fugato, imitation between *PI, PII*	(mm. 133-160)	[F#]
- 2nd group 3rd section first part *PI*	(mm. 161-165)	[E]
- 2nd group 4th section second part *PII*	(mm. 166-170)	[E]
- bridge *PI, PII*	(mm. 171-174)	[E]

Development (mm. 175-273)

name of the formal part, the dominance of each piano part	*measures*	*important tones*

- transition with layers of fourths	*PI, PII*	(mm. 175-194)	
- 1st ostinato based on "coiled motive" *PII*+first group first section *PI*		(mm. 195-207)	[E]
- transition, employing the 1st group 1st section *PI*, ostinato *PII*		(mm. 208-216)	
- interlude, reminder of the first section of the first group *PI, PII*		(mm. 217-224)	[A]
- transition	*PI, PII*	(mm. 225-231)	
- 2nd ostinato based on coiled motive *PI*+first section first group *PII*		(mm. 232-261)	[G#]
- 1st part		(mm. 232-234)	
- 2nd part		(mm. 235-238)	
- 3rd part		(mm. 239-241)	
- 4th part		(mm. 242-244)	
- 5th part		(mm. 245-247)	
- 6th part		(mm. 248-251)	
- 7th part		(mm. 252-255)	
- 8th part		(mm. 256-259)	
- 9th part		(mm. 260-261)	
- transition	*PI, PII*	(mm. 262-273)	

Recapitulation (mm. 274-331)

name of the formal part, the dominance of each piano part		*measures*	*important tones*
- 1st group, 1st section	*PI, PII*	(mm. 274-282)	[C]
- transition	imitation between *PI, PII*	(mm. 283-291)	
- 2nd group 1st section	*PII*, ostinato *PI*	(mm. 292-300)	[A]
- 2nd group 2nd section	imitation between *PI, PII*	(mm. 301-308)	[F#]
- 2nd group 3rd section, imitation between	*PI, PII*	(mm. 309-316)	[C]
- 2nd group 4th section, imitation between	*PI, PII*	(mm. 317-326)	
- bridge	*PI*	(mm. 326-331)	[C]

- 3rd group 1st section, fugato	*PII*	(mm. 332-338)	
- 3rd group 2nd section	*PII*	(mm. 339-345)	
- 3rd group 3rd section, imitation between	*PI*, *PII*	(mm. 346-352)	
- 3rd group 4th section, imitation between	*PI*, *PII*	(mm. 353-360)	
- 3rd group 5th section, imitation between	*PI*, *PII*	(mm. 360-367)	
- 3rd group 6th section, imitation between	*PI*, *PII*	(mm. 368-377)	
- bridge		(mm. 378-382)	
- 3rd ostinato based on galloping rhythm	*PI*	(mm. 383-395)	[Eb]
- transition using the previous ostinato pattern	*PI*, *PII*	(mm. 396-412)	
- bridge, imitation between	*PI*, *PII*	(mm. 413-416)	[F#]
- 3rd group 7th section, imitation between	*PI*, *PII*	(mm. 417-422)	
- 1st group 1st section *P1,* with galloping ostinato	*PII*	(mm. 423-432)	
- coda, imitation between	*PI*, *PII*	(mm. 433-443)	

Perhaps the main difference between the two charts is the emphasis on the introduction with the repetitions of the "coiled motive." On the one hand it is interesting that the first thirty-one measures are mentioned and explained in several theorists' writings. On the other hand Bartók hardly gave us any hint about this part. Although Bartók did not describe this part of the first movement in a detailed manner, he pointed out the foreshadowed first group's motive.

In Bartók's program notes we find the following sentence about the first group second section: "In the exposition the main theme group is announced, consisting of two themes (to which the second has already been alluded in the introduction), after which follows the secondary (contrasting) theme." I would like to pull out one portion of this sentence about the first group second section - in order to verify the master's crafty variation on the coiled motive. In the following chart I compare the "coiled motive" and the second section of the first group to find out what he meant under "to allude" (**Ex. 5**, mm. 5-6 and mm. 40-49). Surprisingly, we find some tracks of the twelve-tone technique: one transition (**Ex. 5**, mm. 47-48, P2), one inversion

(**Ex. 5**, mm. 55-56, I8) of the basic set - the "coiled motive" 's nine notes in mm. 4-5 (**Ex. 5**, P6-Piano I, Po-Piano II).[70]

Another question is the place and role of the third group. Bartók calls it "codetta" which "develops on rather broad lines." Based on his description one cannot define the starting point and length of this part. Bartók's program note gives us a characteristic description rather than a precise division.[71] In my chart the name *codetta* is replaced by the 3rd group. From my point of view, this name is more effective for several reasons: in the exposition there are three main groups, which all have contrasting materials. There is a hierarchy of formal elements within each group; they are divided into sections (e.g. 1st, 2nd, 3rd, 4th section, etc.). The sections are bisected into parts. In my analysis of the first movement, the third group is not different from the previous two groups but equally important on the level of thematic development and subdivisions.

The following paragraphs explain some important definitions in order to understand the second and more detailed chart listed before. The parts are the smallest divisions in the chart. Their existence depends on the length of the section. If the section is short, there are no parts, and it stands on its own, it is called section. However, the lengthy section has several parts. It is not accidental that the introduction or the development has parts as divisions. The length of a part usually is two measures or sometimes more. The ostinato passages are divided into several parts (e.g. Piano II plays the 1st part, while Piano I echoed the same material in the 2nd part).

Like the ostinatos, the repetitions are divided into several parts. These parts are more related and connected to each other (they are part of a particular pattern which is varied in different ways). They are analogous repeated patterns.

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[70]P6: F#-E#-A-G#-D#-E-G-D-C#, mm. 4-5
P0: C-B-EB-D-A-Bb-Db-Ab-G, mm. 4-5
P2: D-C#-F-E-B-C-Eb-Bb-A, mm. 47-48
I8: Ab-Bbb-F-Gb-Cb-Bb-G-C-Db, mm. 55-56

[71]The word codetta means "little tail." Bartók's use of the codetta is dual - it appears at the end of the exposition of a sonata form but in a fugal context with modulatory passages. This element of music is inserted between the two second subjects. The first one is stated on Ab and the later one on E.

Within a group, all sections have similar musical materials but they can be separated. I designated these fillings as follows: transition (modulatory), bridge (less modulatory, stagnant), and interruption (insert-like). In the following passage we will apprehend that these elements have active roles as they connect different groups or subjects.

The transition has combined elements and foreshadows the next passage. For instance, this happens in mm. 208-216, where the transition is based on an ostinato pattern which actually was used before in mm. 32-40. In mm. 208-216 the ostinato operates on a sequence base whose element is a perfect way of transmitting between two parts. Here in particular the transition makes it possible to connect the first and second part of the development, as Bartók wrote: "The first one, in E, employs the second theme of the main theme group as an ostinato motive, over which the first theme of the main group proceeds in the form of imitatively treated interpolations." It is hard to define the tonality of the transition, since it is always changing.

My thought is that the bridge is a more passive connecting element than the transition. For instance, in the *Sonata* I designate the juxtaposed bridge as a held chord accompanying some repeated patterns. The length of the bridge is short - usually four measures. A bridge can be connected to another bridge that has similar material (e.g. mm. 80-83 are related to mm. 91-94). Therefore, in a paradoxical way it can be called an interrupted bridge (e.g. the cause of the interruption is the newly appearing second group in mm. 84-90, and the similar material shared between two bridges in two different places). I call it paradoxical since the bridge has less importance in the level of hierarchy of leading subjects or groups. An interruption between two bridges can be a lengthy passage as we saw in the earlier example (mm. 84-90), so the connection is imaginary.

It is hard to define the purpose of the interruption. It is perhaps material that was added later with naturally surprising effects. The introduction has two of these elements (mm. 6-8 and 10-11). The interlude is related to the interruption but its size and importance is greater.

My chart lists the ascendant piano parts (*PI* or *PII*). If they are both equally important in one particular passage, the following symbols are indicated: *PI*, *PII*.

As shown in **Ex. 2**, the identity of the degree 3 (Schenkerian) remains uncertain: Eb and E alternate with each other. In the exposition, mm. 35 and 63, the primary tone seems to be Eb, while in m. 50, it is E. Starting from m. 32 the timpani's changing repetition of the dyads C- F#, C-G, C-A, and C-F finally leads to the first group's second section beginning in m. 41. As the graph shows, the Eb in m. 35 is the primary tone of the fundamental line, a minor third above the main note C (**Ex. 2**). In the introduction, the interval between F#-A (m. 2), G-Bb (m. 9) and C-A (m. 33) prepares the same interval between C and Eb. The frequently used minor third interval is one of the most important motives (motive x and motive xi), varying in different ways and moving in different directions.

The second section of the first group is rooted on G - the normative dominant - accompanied by an ostinato pattern in Piano II (mm. 41-49). The constantly vibrating G in the timpani part can be understood as the fifth of the C chord rather than as a strong arrival on the dominant. The fact that Bartók does not move definitively to a G sonority suggests that this section - harmonically, still within the prolonged C - is part of the first group. After eight measures (mm. 42-49), similar musical material appears with interchanged piano parts and the timpani's repeated G pedal becomes a C pedal (mm. 50-60). As shown in **Ex. 2**, above the G and later the C bass - D often plays an important role (mm. 49, 53, 57). D is the second scale degree of C and it connects the C and Eb or, as we shall see, C# and E. The character of the melody in mm. 41-60 (the entire second section) can be described as unstable both tonally and motivically; to compensate for this instability, the rhythm of the subject from the first group returns in the percussion mm. 41-60 and is interwoven into the new material of the second section (mm. 41-43, 47-50, 53-56 percussion part).

From m. 50 to m. 60, the timpani is anchored on C, when the first section reappears. But this reappearance has a new purpose: it leads to the second group (m. 84ff.). The first section of the first group (from m. 32) suggests the C tonality and then moves temporarily to G in the second section (mm. 41-60). The reappearance of the first section in m. 61 moves toward the F# tonality in m. 65 (#IV or bV of C). In m. 69, Piano II presents a *marcato* connecting part with

syncopated rhythm and imitation technique. In this process, the bass in the timpani part is also an active partner in the preparation for the second group: from F# in m. 65, the bass moves to C in m. 72, thereby bisecting the octave into two tritones: C, m. 32 to F#, m. 65 and F#, m. 65 to C, m. 72. Then, the bass moves tritonally from G# (m. 75) to D (m. 84). The overall bass progression is up a step from C (m. 32) to D (m. 84).

The bass (timpani) starting from mm. 41-50 presents a G pedal, and in mm. 50-61 a C pedal. From m. 65, the F#-C# is stubbornly played on the fourth and the seventh eighth of each measure. The arrival on F# in m. 69 is metrically supported; its placement on the first beat of this bar releases the tension built up in mm. 61-68. In those eight measures, each fragment of the melody starts on the second eighth of each measure. Comparing mm. 32-39 with mm. 61-68, one realizes the complexity of the relationship between the notated 9/8 and implied 4/4 meters. In the first case (mm. 32-39), the leading piano parts are completed by the timpani's accompaniment. In the second case (mm. 61-68), Piano I syncopates its melody against two accompaniments: the Piano II's 9/8 flow and the already mentioned timpani F#-C ostinato. The later one begins only in m. 65.

Although m. 69 presents a stronger arrival on F#, the bass moves quickly by a sequence toward C in the following manner: F# (m. 69) - E (m. 70) – D (m. 71) – C (m. 72). The combined three instruments in mm. 80-83 employ two tritones which alternate: G#-D and G-C#. An analogous tritonal conflict occurs in the introduction: for instance, in mm. 28-32 the F-B interval moves to F#-C in m. 32. Both of these examples (four measures each) prepare for the following large sections: in m. 32 the first group, while in m. 84 the second group. The bass preparation in each case exploits some kind of chromatically deflected dominant: in the first case, F# in relation to C, in the second case, G# leading to D. This tritonal harmonic progression marks the movement to larger sections in the manner of tonal music.

Following these events the second group (m. 84-90) liberates tension. Above the D pedal in the bass, the melody is played essentially by Piano I (mm. 84-90) and then by Piano II (mm. 95-99). The melody evokes a folk song, as in the first group. Its rhythm is based on Balkan

uneven patterns. It is a well known fact that folk music had a strong influence on Bartók's compositions. As we know, folk music is very variable and an ever-changing art form. The second group is a created folk-like melody. In Bartók's case it is worth explaining more about his free variation technique. The second group, as we shall see, has several variants throughout the first movement. In Szabolcsi's description, an inclination to variation, an aspiration related to the everchanging, shaping nature of folk music that creates something new from it, finds and derives its creative force precisely from leaving nothing untouched.[72]

One can observe the descending and ascending third motives (motive x and motive xi) not only in the first group, but in the second group as well (**Ex. 4, B**). Not only is the character similar to the first group (folk-like melody), but the saturation of the theme with motive x and motive xi also parallels its usage in the first group. Let us consider the first theme of the second group (mm. 84-90): the first two measures employ motive x (mm. 84-85, E-D-C# and B-A#-G#). The following two measures employ motive xi (mm. 86-87, Fx-G#-A# and B-C#-D#). Mm. 88-91 present an interesting sequence-like melody with embedded descending third motive x (**Ex. 4, C**). The motive here is duplicated as follows; **E**-G-**D**-**C**-Eb-**Bb**-**A**-C-**G**. The bold letters and the normal ones articulate motive x. The G-Eb-C omits the passing notes F and D.

Interestingly, mm. 91-94 in the second group are essentially the same as mm. 80-84 in the first group. Therefore, just as mm. 80-84 led to the second group, we expect mm. 91-94 to lead to the second key area in a transposed level. In mm. 84-90 the supporting bass is D, but in mm. 95-98 this material is completed with a vibrating Ab in Piano I (tritonal relationship: D-Ab). The melody of the second group is now shortened, transposed, and doubled in the line of Piano II's melody. The D bass rises to D# (m. 99) and then becomes the third of B major in m. 105. This harmony unfolds in mm. 105-115. As shown in **Ex. 2**, the top voice of the second group is scale degree 3 supported by D in the bass.

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[72]As quoted in Bence Szabolcsi, 'Bartók's Principles of Composition', in *Bartók Studies*, ed., Todd Crow (Detroit: Information Coordinators, 1976), 20.

In this movement every theme is prepared with a previous section that can be viewed as a connecting passage (bridge) or as separate material. The B major chord and the melody above it is a kind of preparation but this also looks back to the previous connecting material (mm. 91-94 F# chord is held, mm. 105-115 B major chord is held). At the *Piú mosso* in m. 115 in the bass an E interrupts the line of D#s. Then it turns back to D# again, but only for three measures (mm. 115-117), with D# now functioning as a chromatic lower neighbor to the prolonged E.[73] From m. 117 the bass settles down on E again, which slowly leads back to F# (m. 133) through C# (m. 162) to the basic tone C (m. 175) (see **Ex. 2**). This insert (mm. 115-117) is an example for the "miniature-bridge" formation. The E interrupts the monotonous chords built on D#, but when E reappears (m. 118ff.), it makes sense as supporting a developmental passage. Bartók had a very logical way of connecting parts whereby each bridge becomes the evolution of an idea.

Motive x experiences an interesting development in this passage. In m. 101, Piano II presents a fanfare-like motive (D-B), which is once again a derivation from motive x. This motive x immediately turns back upon itself presenting the interval of a sixth (m. 102, motive xr = retrograde). This new idea will become the basic seed motive in the third group (m. 133, F-D).

The D#-F# leap (m. 115) is enharmonically equivalent to Eb-F# in m. 123. This fanfare-like motive soon introduces the "real" third group in m. 133. The term "real" is being used to point out that Bartók's musical parts can exist on their own, meaning - they have their separate forms (even tonalities), which place them between larger sections. In mm. 133 we hear the most definite fugato theme that developed from an earlier point, m. 105. In my chart mm. 105-114 are the first section of the third group that is followed with a short interruption in mm. 115-117.

The second section (mm. 118-123) and the third section (mm. 123-132) correspond with the first section (mm. 105-114) and prepare an energetic fugato of the fourth section (from m. 133). There is more motion and excitement in the second and then in the third sections that move one step even further in the fourth section (mm. 133-160); and these elements will grow to

[73]Other possible reading: D# in mm. 115-118 is not only the held bass note but an important soprano note which is connected to Eb (m.123) with enharmony.

the highest degree. As we saw, all sections of the third group are connected with the leaping idea; but they are also separated by mood, tempo and character.

The third section of the third group (mm. 133-160) builds tension between the F#-A (motive x) in the bass, later F#-Bb, while the two piano parts carry a heroic, energetic fugato theme. Its new ostinato is rhythmic and appears as riding beats. While the pianos compete against each other and increase the tension, the timpani constantly fluctuates between the previously mentioned F#-A two-notes. Therefore, the rhythmic ostinato in the piano parts are combined with the timpani's melody ostinato. The trembling F#-A begs the question: is it motive x (F#-A) or motive xi (A-F#)?

Naturally, the fugato is supported by rising motives, increasing melodies, and constantly growing dynamics moving to the climax. It is fascinating how the third group's fugato subject develops from the same motive x as the first and second group's main subjects did in the upper line (**Ex. 4, A** and **Ex. 4, B**). This passage (133-160) has a twofold function: it derives from the second group in an indirect way.[74] It is also directed from motive x of the first and second group but in an opposed direction (instead of F going down to D it jumps up to D).

In a deeper sense it is also part of the motive xi. Examining the graph (**Ex. 2**), the amazing energy that built up from the D (the first beat of m. 135) to F (the first beat of m. 137) is apparent. Even in a greater picture between measures 135 and 160 the same motive is inserted (see the first note of m. 135 and the last note of m. 160). The enlargement and summary of this motive contributes to the great kinetic energy of the passage.

All of these characters differ from the second group, whose reappearance (m. 161) is surprising but relieves the tension built into the intense dissonance of the previous passage. This is the third version of the second group: m. 84 starting on E, m. 95 in Ab and m. 161 on E again. It is a curious way to finish the exposition.

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[74]The first appearance of the "fanfare-like" two notes are represented from m. 84 where the main melody is ornamented with appoggiaturas: B-E, A#-D#, G#-C#...etc. However the distance between the ornament and the main note is a perfect fifth (downward).

The **Ex. 2** shows that the bass is polyphonic in the third group: the C# in m. 161 is a passing tone between D# (m. 99) and C (m. 175), with the F#, which is considerably prolonged, is a tritone away from the main bass tone C. In this way, Bartók works both motive x (the descending third from D# to C) and motive y (the ascending tritone from F# to C) into the third group's bass.

The bass line is the following in the exposition (**Ex. 2**): F# (mm. 1-31) - C (mm. 32-83) - D (mm. 84-98) - D# (mm. 99-114) - E (mm. 115-132) - F# (mm. 133-174) - C (from m. 175). This rising bass line exemplifies the enlargement of motive y.

Throughout the whole movement there is a constant battle between the two colors: the dark, tense F# and the bright, open C. The cornerstones of the first 174 measures (introduction and exposition) are the rudiments of the following passages:

m. 1- F# m. 32 - C [m. 65 - F#] [m. 72 - C] m. 133 - F#

The struggle is apparent between the bigger frames and also in the less important passages as the brackets indicate the less determining entries. This initial tritone F#-C is composed out across the exposition, but interwoven into the development as well as into the recapitulation.

Development

The development section begins with an imitative, fast passage in which the final trill of the exposition based on E goes through a change and becomes Eb (m. 175). Mm. 175-194 serve as preparation for the tense ostinato starting from m. 195. The preparatory passage is based on one single idea: a vibrating trill between two sparkling notes. They are usually a semi tone apart (mm. 175-177). Bartók doubles this stepping motion with fourths moving in a similar manner (mm. 179-194). Sometimes these fourths are in parallel motion (mm. 181-194). The buzzing parallel fourths occasionally break and energetically step up in a scale-like manner (mm. 183 and 185). The whole passage has a dry, motoric, almost machine-like character based on short, almost endlessly moving eighth notes.

Shortly after a chromatic descending line (m. 194) an ostinato based leading motive in m. 195 enters on E and establishes the E tonality throughout m. 217. Between mm. 166-195 the upper voice is the following: E (m. 171), Eb (m. 175), D (m. 179), Db (m. 179), C (m. 182), C# (m. 190), D (m. 194), D# (m. 194), E (m. 195). As the motive x, and motive xi - the fulfillment of the third interval happens here; E-Eb-D-Db-C and C-C#-D-D#-E.

It should be observed that new ostinato patterns are generated in the course of the piece. These ostinatos always alternate with each other. Sometimes they are complementary or imitative in nature (from. m. 72) when, for example, the two piano parts play syncopated patterns. Kárpáti points out the importance of the cambiata type of the theme ("coiled motive," where the two-note melodic element is built on nine mixed chromatic notes without repetition). This character becomes more obvious in the development, where it occurs as an ostinato (mm. 195-207, 232-261). From mm. 195-207 Piano II employs the ostinato. I designated the "coiled motive" in the introduction P6, so its version - the ostinato - activated in mm. 195-207 is P4.[75]

[75]prim version-P6: F#-E#-A-G#-D#-E-G-D-C# (F# is six semi tones higher than C, which is P0).
transposed version-P4: E-D#-G-F#-C#-D-F-C-B.

Besides the ostinato in the right hand, Piano II repeats the following left hand accompaniment, which is four enforced tones of the ostinato: E-G-F#-F. The first and the third note of this short motive is in addition played one octave lower - making the small convolutive four-note motive into a leaping idea:

G F

E F#

This figure has a connection with the *Op. 14 Suite* in which the beginning motive of the third movement jumps in the same way (D-E-F3-G-G#). This technique is used in Arab folk-music.[76] In the previous example (m. 195, left hand of Piano II) the dark E and F# sound, as though it is played on a second instrument. Their pitch is low and their sound quality is percussive (the E is accented). The percussive piano is supported by the doubling timpani between mm. 198-203, adding more force to the sound of the low E.

While one measure equals one segment of the ostinato pattern played by Piano II, Piano I's melody (mm. 198-207) is based on the upbeat rhythm of the first group first section but it is more dissonant. A frequently used interval is the minor second step, deriving from the "coiled motive" as well as from the fulfillment of the first group first section.

As we examine the minor and major second in these two sections, the following can be observed: the previously mentioned first group first section (mm. 32-40) has a four part folk-like melody as well as the melody led by Piano I in mm. 198-207. In mm. 32-40 the first and the second part of the melody have a characteristic minor second step of the last two eighth beats in each measure: Bb-A (m. 33) and E-F (m. 35). The third part of the melody exchanges the minor

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[76]This technique is also well known since the Bach tradition. I would call this Bartók's "false polyphony" since one part of a homophonic setting is dropped down by an octave. The purpose is to color this passage. This leaping formation is also a more spectacular way of representing a melody and was used in great romantic piano works of Liszt for instance.

second to major second: Db-Eb and the fourth part grows even further with a minor third step: B-Ab.

Contrary to this passage, mm. 198-207 are constructed in pairs: the first part of the melody (m. 198) has a minor second step: F#-F. However, the second part starting from the seventh eighth of each measure (mm. 200-202) is different. Here, the melody is the following (added together from the accented right hands' notes of Piano I): Eb-Db-Cb (major second steps). The third part of the melody is parallel with the first one (mm. 203-204): Bb-B minor second step, while the fourth part has major second steps, as we follow the right hand of Piano I (mm. 205-207): Ab-F#-E. A detailed comparison of these two sections reveals how crafty Bartók was with variation technique.

The sequence starting from m. 208 uses the rhythm of m. 33 and m. 198. This sequence has an F# in the bass, which comes from the low E of the ostinato pattern through the low B starting from m. 204 in the timpani part (**Ex. 2**). All three bass notes appear and vary in the timpani's part in mm. 211- 216. Their relationship is based on a circle of fifths but in reverse order: F#-B-E. The last E leads to A in the bass of m. 217 (m. 216, F#-B-E- m. 217, A).

At m. 217 we witness a big arrival on another folk-like theme; but it is too short to be established harmonically (mm. 217-224) and otherwise this is an inserted material (interlude) between the two larger segments of the development. The bass A note in mm. 223-224 acts similarly to the earlier example; it leads to D (m. 216, F#-B-E-m. 217, A-m. 224, D).

At m. 232 the ostinato pattern returns with the shifted roles of the pianos. The steady ostinato-accompaniment is played by Piano I, while Piano II presents the upbeat rhythm. This ostinato passage, starting at m. 232 is longer than its earlier counterpart (compare mm. 195-216 to mm. 232-261). The steady ostinato-accompaniment is an inversion of the "coiled motive,"[77] It is interesting to note that the three sections using the "coiled motive" are related to each other. The distance between the first note of the original "coiled motive" (F#, m. 4) and the first

[77]inversion - I8: G#-A-E#-F#-B-A#-Fx-B#-C#, mm. 232-259;
inversion - I2: D-Eb-B-C-F-E-C#-F#-G, mm. 260-261.

ostinato's first note (E, m. 195) is a major second similarly to the difference between the first note of the "coiled motive" and the first note of the second ostinato (G#, m. 232). Piano II in mm. 236, 238, 243 recalls a typical motive played by Piano I in mm. 198, 203-204. Similar motives are repeated in mm. 248-255 by Piano II.

Repetition always causes tension, especially in this movement. However, this pulling tension is momentarily eased. The transition to the recapitulation is replaced, as we know from the manuscripts already discussed in Chapter 2.

M. 262 is a starting point directed toward the crucial m. 274 where the C tonality returns. Again, as we saw at the very beginning of this movement, the introductory material precedes the bright, forceful first subject in C. It is striking how Bartók uses the same idea twice (compare mm. 1-31 and 232-261). The thirty-one measure introduction (mm. 1-31) is symbolically restated before the returning first group of the recapitulation.[78]

Bartók added a short transition afterwards (mm. 262-273, see Chapter 2). The anticipatory dark passage effectively leads to the busting m. 274. This moment could be the recapitulation in a normal sonata form. The duality of C and Eb are present in mm. 264-270; the steadily repeating Eb in the timpani part is combined with a low C in Piano II. The Eb becomes Bb (m. 270, starts at the seventh eighth beat) which finally leads to C of the first group first first section (mm. 274-282).

Ex. 6 shows the extraordinary logic in the structure of the transition. After careful examination one can see the motivic development based on the circle of fourths. Two inversions (m. 259, I8 and mm. 260-261, I2) precede the line of the segmental coiled motive's various versions:

[78]The ostinato passage and the introduction have similar length: the introduction is thirty one measures long while mm. 132-261are thirty measures long. However, Bartók probably was not satisfied with these measures as transitional materials.

P6 (mm. 262-263)

P1 (mm. 264-266)

P6 (mm. 267-268)

P11 (m. 268)

P4 (m. 269)

P9 (m. 269)

P2 (m. 270)

P7 (m. 271)

P0 (m. 271)

P5 (m. 272)

P10 (m. 272)

P3 (mm. 272-273)

P8 (m. 273)

One can see that there are exactly twelve versions (P0, starting on C; P11, starting on B) - representing the whole spectrum of variability. The versions are not recognizable first, since the order of the notes has changed (e.g. C-C#-D-E-D# instead of C#-C-E-D#). Each segment of the "coiled motive" has an additional note, e.g. D in the last example. This additional note balances the four other notes, being symmetrically in the middle of their ambitus:

C C# D D# E

This is the original order of notes in mm. 264-265:

C C# D E D#

Their changed order presents the first segment of the "coiled motive:"

C# C - E D#

Naturally motive x, is exhibited in the whole transition. This motive is part of the "coiled motive."

Recapitulation

The restated first group is hidden in the hammering theme: Piano I opens the segment of the rhythmically changed first group first section (C-Bb-A-C) on the fourth eighth beat of m. 276 and closes on the first eighth beat of the following measure, m. 276. The next segment of the original first subject (Eb-D-E-F-C) is clouded in mm. 279-281: it begins to move in the last two eighth notes of m. 279, leaning into the next measure (m. 280) and ends in m. 281 on C. The last C is preceded by two additional eighth-notes: Eb and Db (m. 280). Only the first half of the folk-like first subject appears in the recapitulation. The second half is missing and replaced by new, additional folk-like material (mm. 283-291). Conclusively, mm. 274-276, 278-279 are trebling C and F chords between the two pianos and two percussion players. Mainly the character and tonality is the base of the resemblance to the first group first section from the exposition. A new motive begins at m. 283 serving as a transition to the second group.

The second group is supposed to be in the key of C, following the normal sonata form. Instead, it appears in A (m. 292). The melody is constantly accompanied by a celesta-like repeated pattern of Piano I (mm. 292-300). This bell-like ostinato ornaments the A tonality (G#-A-Bb-A from m. 292). From m. 301 similar musical material continues but in shifted F# tonality until the point of C in m. 309. This is still a weak arrival of C, hence the instantly moving line does not support the settling of C. This ascending line shared by the two pianos moves up by whole steps as follows: m. 309 (C, Piano II), m. 310 (D, Piano I), m. 311 (E, Piano II), m. 312 (F#, Piano I), m. 314 (F# is repeated, Piano I), m. 315 (G#, Piano II), m. 316 (A#, Piano I). The *pp* dynamics supports the continually changing tones, so that the real arrival is delayed. The bass C is trapped (mm. 309-316).

The second group (mm. 84-90) in the recapitulation comes through a major development; its length is almost forty measures with several transpositions. The second group in the

recapitulation (mm. 292-325) is partly a set based variation form. In the following we will see how Bartók creates variation, but for this we have to recall the original second group first section. One possibility of variation technique is the tonal system. Within the eleven variations we find different tonal centers. In the case of Bartók, the major-minor key variation opens up a wider variety of tonal systems which appear in order as follows, almost always accompanied by a repeated note or motive (ostinato):

measures	name	ostinato
(mm. 84-90)	Theme in E	D (Piano II)
(mm. 95-99)	First Variation in Ab	Ab, D (Piano I, timpani)
(mm. 161-170)	Second Variation in E	E (Piano I)
(mm. 292-295)	Third Variation in A	A (Piano I)
(mm. 300-308)	Fourth Variation in F#	G, F# (xylophone)
(mm. 309-316)	Fifth Variation in C	C (timpani)
(mm. 317-325)	Sixth Variation in Eb	

In the variation process several elements had changed (see the chart). In **Ex. 7**, each line stands for one variation of the second group. They all are divided into four or eight measures and after careful examination, I decided to compare the directions of each lines' first four measures, respectively. The following symbols are used:

Z descending majorr second	Zi ascending major second
X descending minor third	Xi ascending minor third
<u>X</u> descending major third	<u>Xi</u> ascending major third
W descending perfect fourth	<u>Wi</u> ascending perfect fourth
Y descending tritone	<u>Yi</u> ascending tritone

Bartók bridged the change between the second group and the third group with a common technical device: chromaticism (mm. 326-331). Measures 317-320 in the right hand of Piano I are answered by the right hand of Piano II transposed a fifth lower. The broken melody in m. 324 continues in the right hand of Piano I until m. 326, whereas the very low C indicates that a pivotal moment is coming.

One of the most aggressive themes returns here - the fugato-like third group. This fugue subject, after eight measures, is answered by its transposed version by a perfect fourth lower. Thus the fugue subject's entrances are based on the following tones: D (m. 332) - A (m. 339) - E (m. 346) - B (m. 353). The entire third group's character is based on leaps of sixths. This idea of sixths feeds the dance-like ostinato pattern of Piano I (mm. 383-405). Piano II's material recalls mm. 200-207. The galloping ostinato lasts until m. 413 where all voices arrive on the strong F#. The galloping ostinato does not stop yet; the third group's fugue subject appears in m. 417 but after six measures the chase continues: Piano II uses the sixth-base galloping ostinato, while the coda happens.

Piano I from m. 422 recalls the first group but its rhythmic values have been changed. From m. 433 the bass timpani hesitates between two notes: F#-Eb. Very close to the end of the movement (from m. 437) we still do not know what tonality will end this movement with the bass notes F# and C, emphasizing the former one. In m. 442 (one measure before the last one) the F# definitely moves to G which leads to the final C. We are the witnesses of the change of two colors: the awakening dark F# at the last moment arrives at the bright, vital C.

CHAPTER 4

PERFORMANCE

Bartók Plays Bartók

Our generation is very fortunate to have Béla Bartók's recordings, writings, and autobiography. If we examine Bartók's extant recordings we will not be surprised that they represent mostly his own piano compositions. Besides this, he recorded other composers' work (e.g. Beethoven, Debussy, Liszt, and Scarlatti) and his own accompanied songs as well as chamber music. In the final chapter, I will focus on the recorded performance of the first movement of the *Sonata for Two Pianos and Percussion*.

For some reason, we have only one recording of this work. This might be due to the fact that recording facilities were not very developed in the 1940's; and they were not part of a musician's everyday life as they are at present. The recording discussed in this chapter was made in the United States of America for a CBS (Columbia Broadcasting Studios) radio broadcast. We would probably agree with Bartók and his contemporaries that one of the best performances of the *Sonata* happened at its première (which was not recorded, see details about the performance in Chapter 1) and not in 1940, in the previously mentioned CBS studio. All recordings have their own value and despite the weakness (there are several mistakes) of the CBS broadcast recording, its value cannot be overlooked. Due to its late date (it was made five years before the composer's death) it can be viewed as an example of the playing style of the mature Bartók.

The Bartóks, in 1940 recorded the piece on gramophone, in New York, just after they arrived in the United States, (Classic C 2113-15 and transferred in 1950 to ip on Vox PLP-6010, so it was released by Vox). Performing together with Ditta Pásztory-Bartók, Harry J. Baker and

Edward J. Rubsan, percussionists, Bartók did not have sufficient time to rehearse. Tibor Serly, Bartók's friend, was also present in the studio, and adhering to Bartók's specific request, did not participate as a conductor. This negated the only chance that could possibly have kept the four performers together. Probably the lack of preparation on the part of the two percussionists and their limited practice time affected the success of this particular recording.

In order to criticize interpretation and sound quality objectively, we must know why, and how, a recording was made. A studio recording of the broadcast was made for later use by the station for archival purposes or for a broadcast. Playing in a recording studio, conscious of producing an authentic, lasting version of his work, Bartók would - as would anybody else - in a certain sense, have played differently than at a public recital. Obviously he disliked the former and had a strong opinion about gramophone recordings in general: ". . . But even in that case there will be an irreplaceable superiority, for which there is no substitute, of the live music over the stored, canned music. This substitute is the variability of live music. That which lives changes from moment to moment; music recorded by machines hardens into something stationary."[79]

[79]Benjamin Suchoff, ed., "Mechanical Music" from *Béla Bartók Essays* (Lincoln and London: University of Nebraska, 1992), 298.

The Only Bartók Recording of the Sonata

I would highly recommend listening to the only existing recording made by the Bartóks if one intends to perform the *Sonata*. While listening, we need to separate the piano parts from those of the percussionists; the percussionists have several wrong entrances, missed parts and they obviously are lost in the flow of rapid beats and fast actions. Not counting the slight mistakes of the pianists (mainly Piano II), we realize that both Mr. and Mrs. Bartók's playing represents simplicity and deep, emphasized musical expression rather than technical virtuosity.

We learn from the recording that the introduction (mm. 1-31) is the first establishment of the dark, mysterious character of the whole movement. Bartók does not interfere with Mrs. Bartók's more expressive playing. Their tempo is slightly faster than the tempo marking of the score (quarter note equals 70). They seriously accelerate in some places, but the accelerando is requested in those parts (mm. 13-18, 21-31). While speeding up, Mrs. Bartók plays very heavy, strong chords within a *crescendo* line - preparing the dynamic arrival on *fff* in m. 18 (from mm. 14). Mrs. Bartók's playing is very expressive; and the whole introduction has a peaceful, dark atmosphere in which Mrs. Bartók's solos are sudden splashes of extreme passion (Piano II, mm. 6-8, 10-11). At the same time, Bartók's role (Piano I) is to establish a stable background.

The first group first section (mm. 32-40) has a slower beginning than its suggested tempo (dotted quarter equal with 132). Bartók and Mrs. Bartók obviously speed up in the following second section (mm. 41-60) making up for the awkwardly slow beginning of the exposition. This chase-like tempo is naturally uncomfortable for the two percussion players and we are witness to their unsure entrances.

Bartók surprisingly exaggerates the second group first section's first grace-note, elevating its lament character. Many Bartók recordings undoubtedly preserve a revised form compared to the score, as in this example where his use of *rubato* is very different from the written score.

One can say that Bartók follows the flow of the music during these performances rather than the better of his own scores. The accompaniment of these *rubato*-like measures are Mrs. Bartók's repeating D bass notes, which ring like bells. One can say that she has a deep and very pleasant touch.

The third group's tempo is safely chosen - slow - to avoid further dichotomy between the pianists and the percussionists (m. 133). Of course, this would not have been necessary if better percussion players had been present. For instance, the timpanist "forgets" to move from F# to A in m. 133, so the Bartóks decide to go on without him (he joins them later).[80]

The returning second group's tranquil section (m. 161) is not as fully expressed as its earlier counterpart (m. 84). It is played more simply by Bartók. The development section begins very soon (m. 175), so there is no time for *rubato* playing. Bartók's preference for variability is present here: he did not want to play similar passages in similar ways.

Generally, it can be stated that both pianists speed up in repetitive passages in order to keep the flow of the movement and to be competitive with the slowing down percussion players. This is especially true in the case of the ostinatos (mm. 41-56, 232-260). Starting from the development (m. 175), it becomes apparent that the two pianists listen more to the percussionists than the percussionists to the pianists. A very problematic passage is presented in mm. 217-223, where Mrs. Bartók (Piano II) follows Bartók (Piano I), but Bartók is occupied with keeping up the tempo with the timpanist. Thus, the passage almost falls apart.

The pianists speed up in repetitive passages, but slow down in problematic places, sometimes to emphasize something. Between mm. 422-432; there is a purposely held-back tempo, to prepare the coda in m. 433.

The above mentioned gramophone recording is one of Bartók's last recordings (there were more in 1942 and in 1945, when he was seriously ill) and Bartók's technical skills cannot be compared with the performances from his youth. Therefore, if one wants to know more about

[80]The fast glissando playing was a new techniques in the timpani playing.

the *Sonata* and Bartók's interpretation of it, one has to listen to more of his recordings of other pieces.

The value of the recording is great, even if all performers - not only the percussionists - have apparent mistakes. Bartók himself wrote in the following:

> Although the very best gramophone records can never replace the original performance from an aesthetic point of view, they still must be considered as a surrogate. The role of the gramophone is more important from the pedagogic and scientific point of view. It offers the possibility for composers to pass on to the world their compositions not only as musical scores but in the form of their personal appearance or in presentation which conforms to their ideas . . . , such infinite, minute nuances which cannot [be] sic. expressed notationally, yet can be immortalized in their totality on gramophone records.[81]

Before analyzing Bartók's playing, we have to mention that of Mrs. Bartók's. She was as great a musician as her husband. Her keen hearing (trying to be unified in sound with Bartók) makes her an excellent chamber partner and her fine touch is more distinct than Bartók's. She has less expertise with improvisation; for example, when the percussion players make a mistake in the first movement of the *Sonata*, her response to the change is slower than Bartók's. Mrs. Bartók is more rigid than her husband when dealing with sudden tempo changes. In contrast to this improvisational rigidness, her response to her own husband is different; she assimilates to changes in Bartók's part more skillfully, which emphasizes her virtuosity as an excellent piano-duo player.

Articulation and exact musical intonation, are the most important elements in Bartók's playing. After listening to many of his recordings including the *Sonata*, the recorded music suggests that musical expression triumphs over the simply precise reproduction of the score. His performance never lacks variety or extreme contrasts. That is what today's performers overlook and seldom use. They try to keep everything as accurate and virtuosic as possible, not to mention the constantly overused percussive touch which is falsely believed to be the only

---

[81]Ibid., 292.

Bartókian characteristic. In contrast to this, the real Bartókian playing forms melody in a beautifully simple way: he highlights the hierarchy of notes in a melody. Long melodic arches cover the small-scale articulation of tunes. In the case of an ostinato, where constantly repeated patterns power the music, Bartók expects performers to use only the natural accents of the rhythm, not enforcing any unnecessary accents. Somfai observed the following about Bartók's recording:

> The search for the experience of catharsis-suffering and cleansing that heals and lifts up-is extraordinarily strong in Bartók's piano playing. He reaches the white heat of catharsis repeatedly and with differing intensity in his large-scale works [...], sometimes in triumph, sometimes in an incantantory manner, or with dream-like music silence. Bartók shows in his own interpretations that an objective and correct reading of a score and virtuosity are no substitute for *personality*, for the courage and imagination of the performing artist. The legendarily precise Bartók scoring was not able to indicate with sufficient accuracy and detail a performance of the wealth he imagined, and which he did demonstrate in part in his own recordings. It is therefore doubtful whether he would accept the many precise but mechanical virtuoso performances of his scores as great achievements. Bartók's performances bear continuous witness to what is behind the bare notes, signs of articulation and instructions.[82]

Some disagreement is present among writers regarding Bartók's principles concerning the performer's relationship to the musical score. According to Suchoff, Bartók desired that the performer neither add nor subtract from the composer's intentions as expressed in the written score.[83] This view is certainly supported by the scholarly precision which Bartók demanded in the editions of his music. Vinton states that Bartók was very careful about dynamic markings.[84] In contrast to these observations, I believe that Bartók, by his nature, was a free thinker and accepted the ever changing nature of music. Numerous elements could cause the change

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[82]László Somfai, notes to *The Artistic Testimony of Bartók's Recordings* (Bartók at the Piano, 1991), CD, Hungaroton Classic HCD 12326-31, 18-19.

[83]Benjamin Suchoff, *Bartók and the Guide to the Mikrokosmos* (Doctoral dissertation, New York University, 1956), 46.

[84]John Vinton, "Hints to the Printers from Bartók,"*Music & Letters*, XLIX/3 (July 1968): 228.

between the written score and the actual sound: the performer's temperament, the circumstances of the recording, the collaborating partners, etc.

The beauty of Bartók's own performances is his very simple and harmonious interpretations of his music. He trusted his intuition, and his interpretations are often spontaneous. Throughout his turns of style, statement and sensibility were more important than playing the music correctly; that is what his very own playing proves.

Some Advice for Performers

"Slowly, however, I have become convinced that one piano does not sufficiently balance the frequently very sharp sounds of the percussion." suggests Bartók in the Basler National Zeitung. The first movement presents some extremely loud dynamics (e.g. *ff* in mm. 6, 10), in which case, both pianists have to execute strong, percussive sounds.

At the beginning of the score there are some explanatory remarks regarding performance practice. One is that: "If performed *without orchestra*, one of the pianists should lead the whole ensemble. In addition, he should supervise the percussion players during rehearsal and see that the requirements of the score are strictly observed."[85] This means that one of the pianists (I think, both pianists) should examine and even analyze the music before playing it, since it has several parts where the performers are advised to follow each other's part. They have to predict each other's entrances by listening very carefully. The two pianists imitate each other, sometimes so quickly that there is no time for counting beats. Thus, they have to practice the piece together extensively; and after they have established precision playing together they can join the percussionists. Their material is really a fused together doubled piano - they are very balanced and equal, therefore the two pianists' strength and musical thinking (e.g. *rubato* in the second group first section in m. 84) have to agree and have to move on the same degrees - not less, not more - than the other.

A minimum of ten hours of practice time is advised for the four performers, as even Bartók stipulates in a letter written to Antonia Kossar:

> I have to state and emphasize the following: in the Netherlands and in Brussels before each performance, there is a need for ten hour rehearsal time, divided into two and half hour segments (one on the day of the recital, the other two on the

[85]This note can be found at the beginning of the published score.

previous day, and on the first day one, or somehow). It has to be performed without conductor (hence I conduct in some places where it is necessary).[86]

The following percussion instruments should be present on the stage with a certain order indicated and mapped at the beginning of the published score (see the drawing, which was made by Bartók himself): 3 Timpani, Xylophone, Side Drum with snares, Side Drum without snares, Cymbal suspended, Pair of Cymbals, Bass Drum, Triangle, Tam-Tam (**Ex. 1**). Bartók added some extra notes for the percussion players in regard of the sound and color:

> The *Bass Drum* is to be played with a double-headed stick.
>
> The *Triangle* is to be played (*a*) with the usual metal beater; (*b*) with a thin wooden stick; (*c*) with a short, but rather heavy, metal beater; each according to the indications in the score.
>
> The *Cymbal* is to be played (*a*) with an ordinary timpani stick; (*b*) with the heavy end of a side drum stick (marked in the score"col legno" or "c.l.")-here the Cymbal should be struck either on the edge or, if indicated, on the dome in the centre; (*c*) with a thin wooden stick; (*d*) with the blade of a pocket-knife or some similar instrument. The sign " a2 " indicates that two Cymbals should be clashed.
>
> The *Side Drums*, either with or without snares, are to be played with the usual sticks. If, however, the Side Drum with snares should sound too loud, thinner sticks may be used especially in mezzoforte, piano and pianissimo passages (the same as those mentioned above in (*c*) for the cymbals). The snares of the Side Drum should be released when the instrument is not in use, to prevent vibration.
>
> Experience has proved that two skilled players are sufficient for the whole percussion part. Should this in some cases prove difficult, a third player may be employed for the Xylophone, which in this case should be placed either behind or in front of the other percussion instruments.

These notes show that not only must the pianists' roles merge with the percussionists, but vice versa. As two additional lines (numbers 1 and 2 below) are included in the published score, one can understand the metamorphosis of the two instrumental groups. The percussion instruments have to limit their strength by avoiding vibration: "(1) The pair of Cymbals should be laid on cloth, when not in use, to prevent vibration." Bartók for practical reasons suggests the

[86]János Demény, ed., *Bartók Béla levelei* (Béla Bartók Letters) (Budapest: Zenemükiadó, 1976), 593.

following order of two instruments: "(2) The Xylophone should be placed above or next to the Bass Drum." Also as the previous quote suggests (describing all percussive instruments), in many cases the percussion players have to change the head of their sticks, even the material covering them (pocket knife, blade, wood, heavy metal, etc.). Bartók being an excellent orchestrator thought about each entrance of the percussion. To mention only a few of Bartók's inventions - the piercing quality of the xylophone (it plays often in a high register), the quickly changing timpani glissandi (this was possible on the pedal timpani only), the smooth Bass Drum rolling, the lightly sounding pocket knife, or wooden stick played on the Triangle - they all show how important was each musical momentum for Bartók and how he eliminated the pianos' sound with an unusual percussion sound. These new techniques contributed a new approach for all percussion players in the twentieth century.

The first movement exhibits several rhythmical dilemmas, of which I chose the most problematic ones. In the last passage I would like to shed light on the possible solutions for those problems. The first group is a special case (m. 32). One solution could be the separation of the time signatures (**Ex. 2**). The pianists can count before their entrance in m. 33 by following the timpani's triplets - 1/8 rest+9/8 - meaning: one eighth rest is followed by C-F#-C, F#-C-F#, C-F#-C notes. At the same time the timpanist may count in 4/4 by couplets as follows: C-F#, C-F#, C-F#, C-F#, C, C, C, C - each C represent a quarter note. This means that he has eight C notes within two measures: 1/8 rest+4/4+5/4.

Bartók even mentioned the following problem to Paul Sacher, the work's commissioner:

> . . . Not long time ago I had a chance to watch very carefully a percussion ensemble: by my original intention it will be very good to perform the piece with two percussionists. However, there will be some rhythmical difficulties (in the first movement)

Ex. 3 shows the short list of the rhythmic patterns mentioned in the letter written to Paul Sacher. The first line happens in mm. 84-90 (Piano I and Piano II), the second line in mm. 301-

309 (xylophone and Piano I and than Piano II). The last pattern of the second line was already described in **Ex. 2**.

Bartók also points out in the same letter above, that besides rhythmical difficulties, the performers have to be aware of using added dynamic levels and colors. Thus sudden changes will happen within a certain dynamic level (e.g. the third group in mm. 133-160). Here, *p* is indicated until m. 157. Within this level, all performers have to show a gradual increase of tension.

Conducting is recommended in mm. 217-223 and 274-282. These two cathartic moments demand precise interpretation, hence some of the parts imitate each other.

The list of possible solutions is endless; but the performers have to analyze them first and logically put solutions together afterwards.

CHAPTER 5

CONCLUSION

If one discovers the micro elements of the Bartókian macro world, one will understand his language and will interpret well his distinctive works. One problematic movement exists as part of a bigger work - *Sonata for Two Pianos and Percussion* - where there are so many mysteriously difficult passages that I started to do some research in order to comprehend them. I realized that by examining each questionable place where I had difficulties, with profound linear analysis and the comparison of his manuscripts to the published version of the movement, the genius and complexity of the piece was slowly revealed.

As a performer - it is an epiphany when we think we understand what the composer meant in certain passages. Without learning about him - his research in folk-music, his music-historical lectures, his recordings - one can not give a truly satisfying performance.

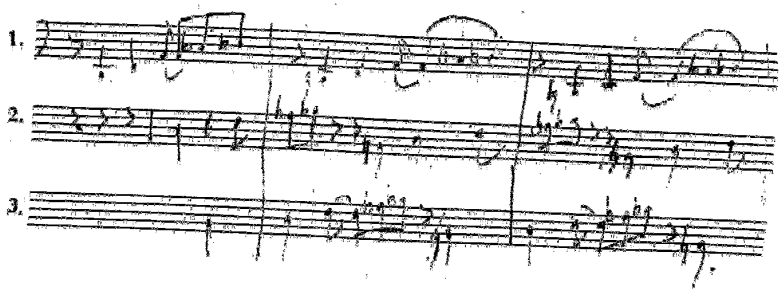
Bartók himself was an intelligent individual who spent his time composing, performing (both his compositions and that of others), studying (languages) and researching (folk-music). His wide interests and extraordinary linguistic skills brought him to exotic locations where he collected ideas. His predilection for exotic percussive instruments and sounds (Arab, Turkish music) appears in the *Sonata for Two Pianos and Percussion*.

Seldom did he share insights into his compositional techniques and left very few analyses of his own works. Our generation often has to guess about the formal, structural elements of his compositions. In the case of the *Sonata for Two Pianos and Percussion*, the materials we have are scanty at best: some letters, a short program note and a recorded performance left from one of his most successful tours in Western Europe and the United States. Fortunately, we have access to his manuscripts and they provide answers several questions. The usage of all of these sources is recommended, especially for a sincere performer.

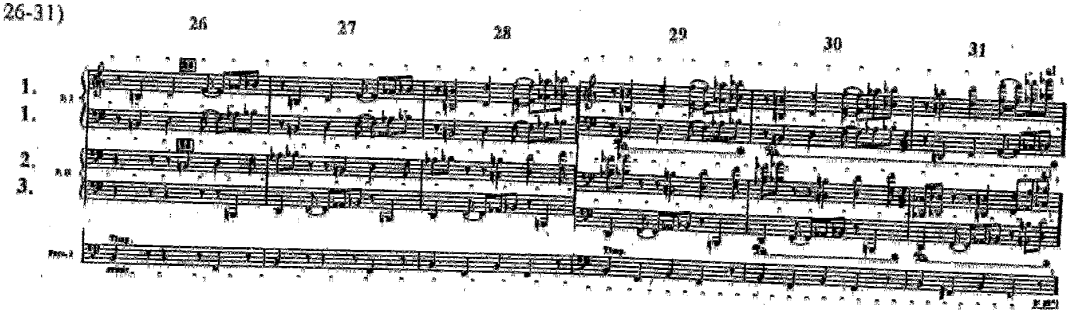
My doctoral document is divided into four parts: historical, manuscript study, analysis and performance. They represent different aspects of my research. Bartók's music needs to be approached from several directions, as his music has numerous influencing factors. Bartók's thinking and playing was always founded in reason, he always had a logical purpose. This consistent and persistent logic is what performers and researchers must come to recognize.

APPENDIX A: MUSICAL EXAMPLES FOR CHAPTER 2

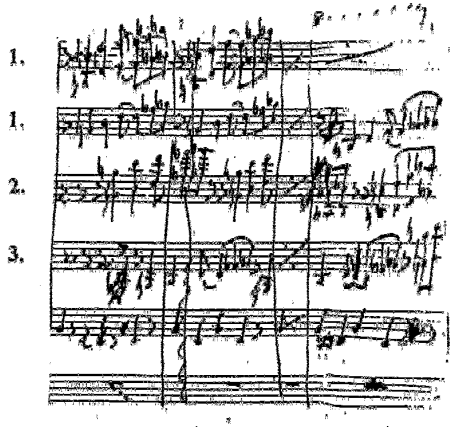
Ex. 1, A
First Sketch
(PB59PS1, page 71)



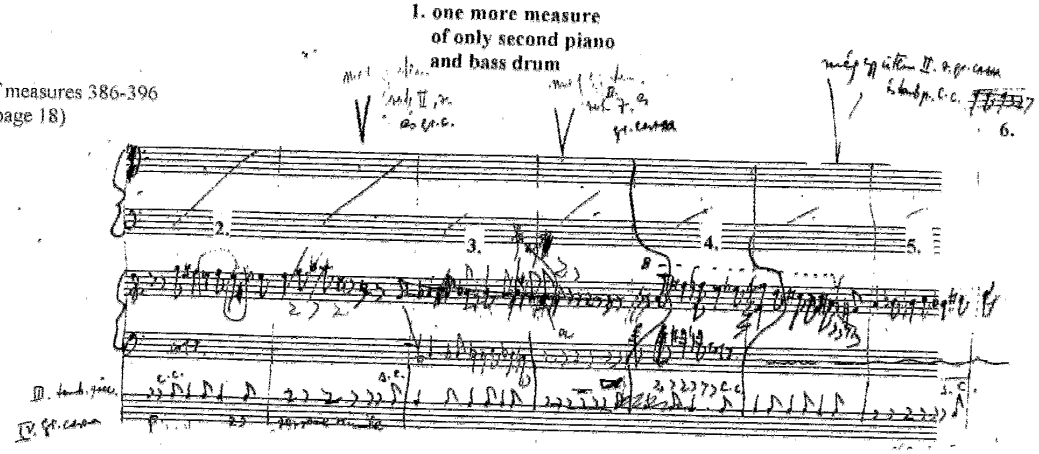
Ex. 1, B
Published Version
(page 8, measures 26-31)



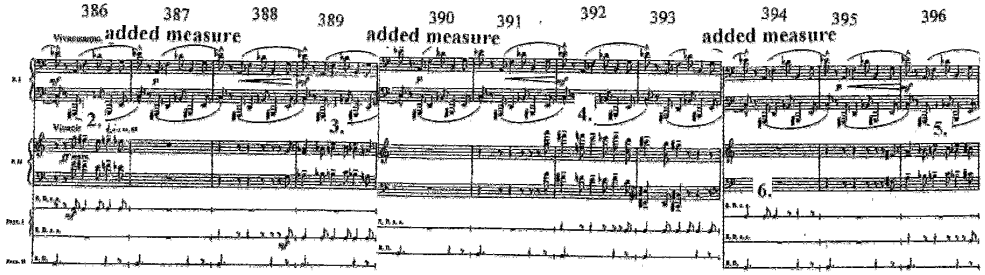
Ex. 1, C
First Draft of measures 26-31
(PB75FSS1, page 2)



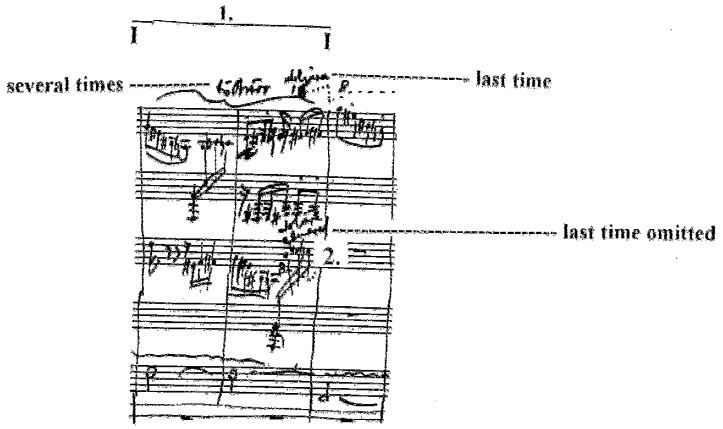
Ex. 2, A
First Draft of measures 386-396
(PB75FSS1, page 18)



Ex. 2, B
Published Version
(page 44, measures 386-396)



Ex. 3, A
First Draft of measures 336-337 and 348
(PB75FSS1, page 35)



Ex. 3, B
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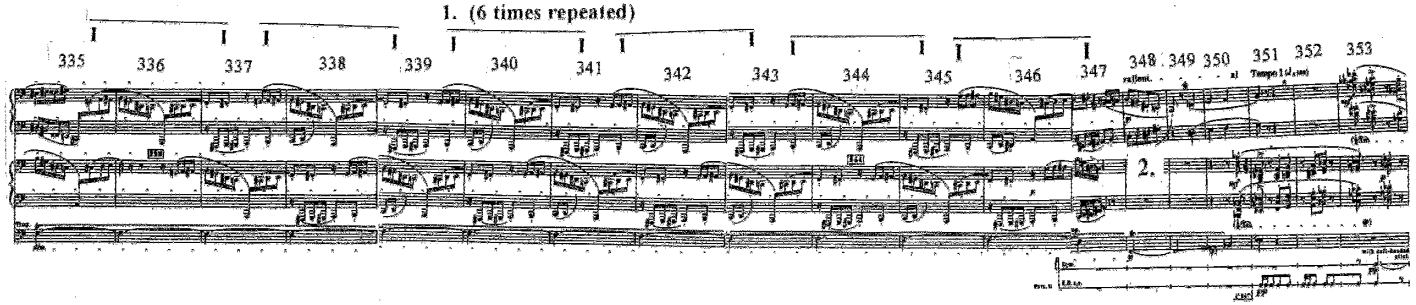
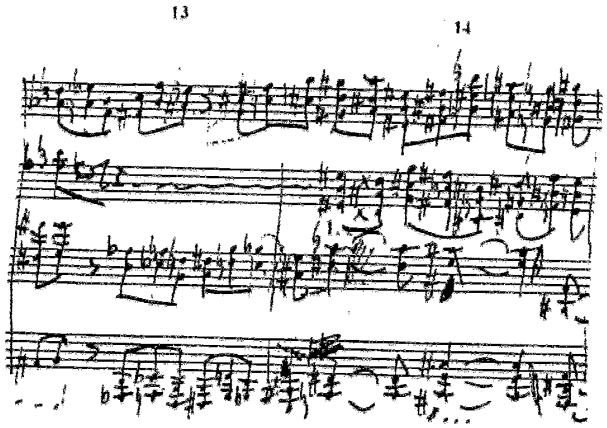
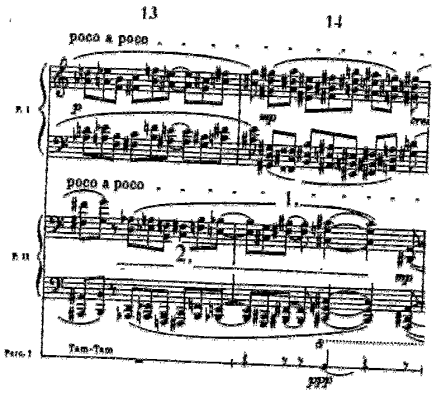
(pages 40-41, measures 335-353)



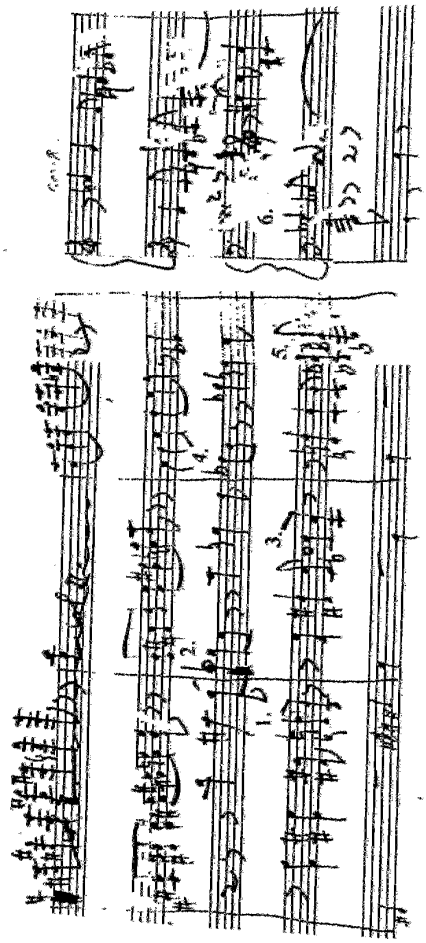
Ex. 4, A
First Draft of measures 13-14
(PB75FSS1, page 2)



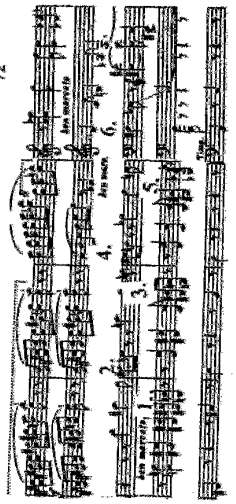
Ex. 4, B
Published Version
(page 6, measures 13-14)



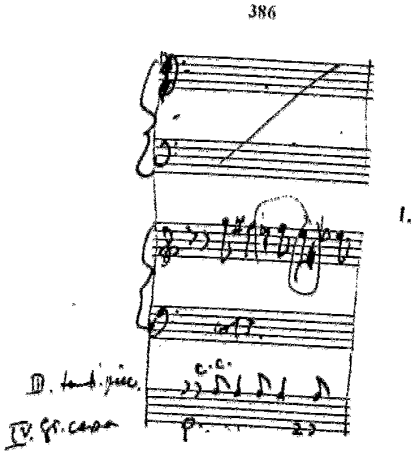
Ex. 5, A
First Draft of measures 69-72
(PB75FSS1, page 5)



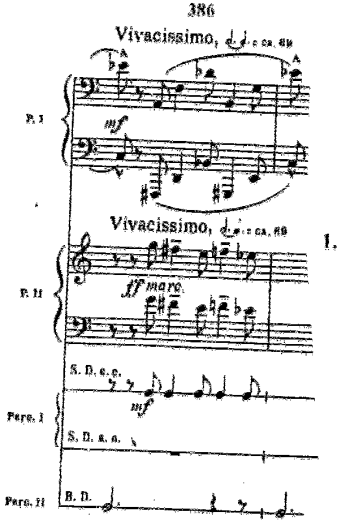
Ex. 5, B
Published Version
(page 14, measures 69-72)



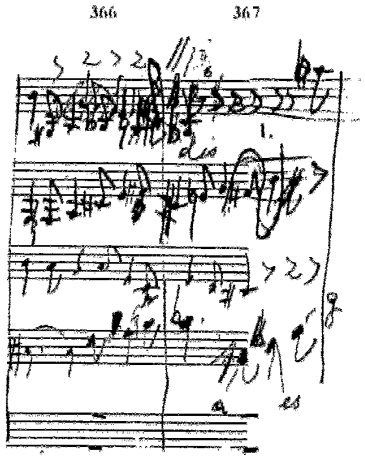
Ex. 6, A
First Draft of measure 386
(PB75FSS1, page 18)



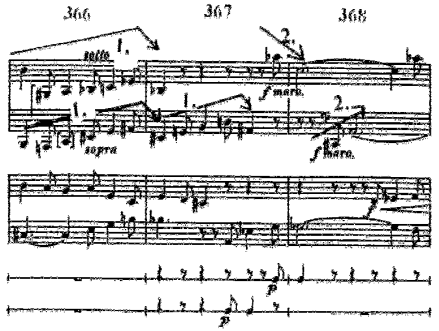
Ex. 6, B
Published Version
(page 44, measure 386)



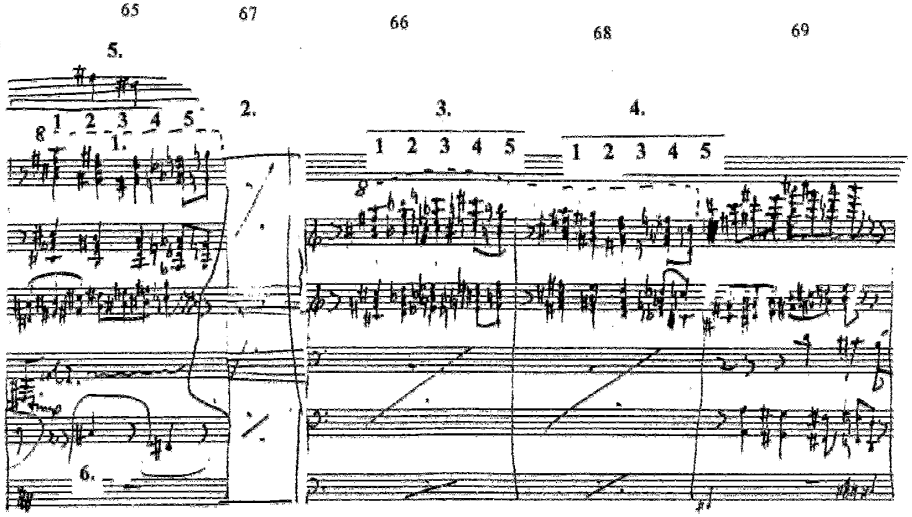
Ex. 7, A
First Draft of measures 366-367
(PB75FSS1, page 17)



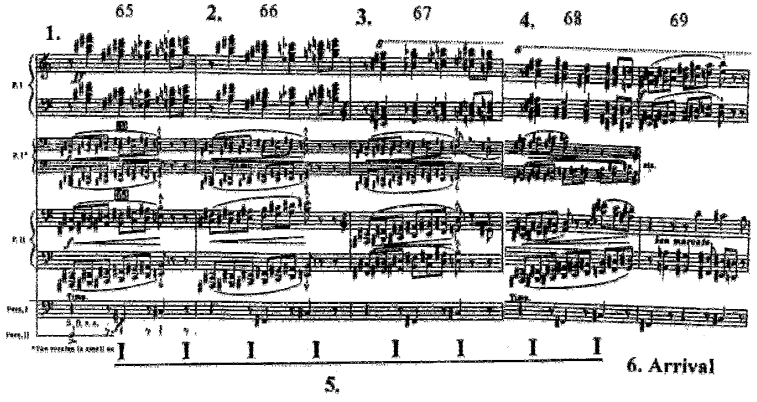
Ex. 7, B
Published Version
(page 42, measures 366-368)



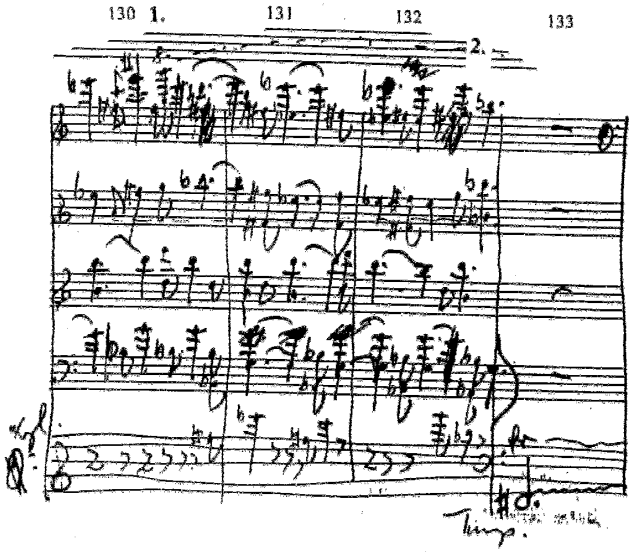
Ex. 8, A
First Draft of measures 65-69
(PB75FSS1, page 5)



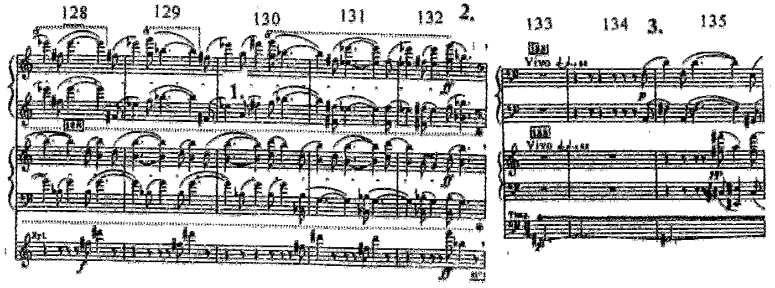
Ex. 8, B
Published Version
(page 13, measures 335-353)



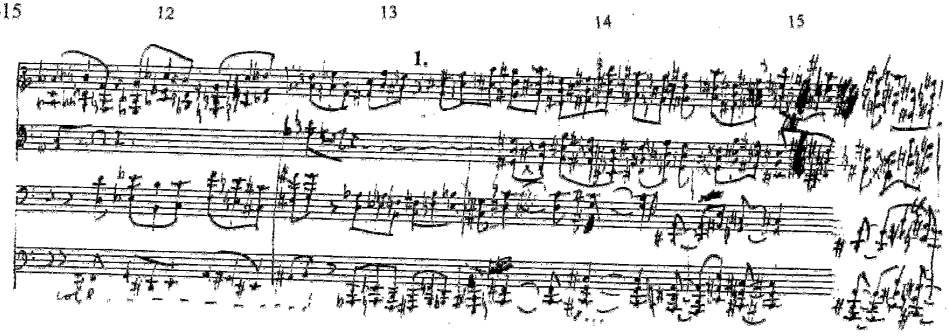
Ex. 9, A
First Draft of measures 130-133
(PB75FSS1, page 7)



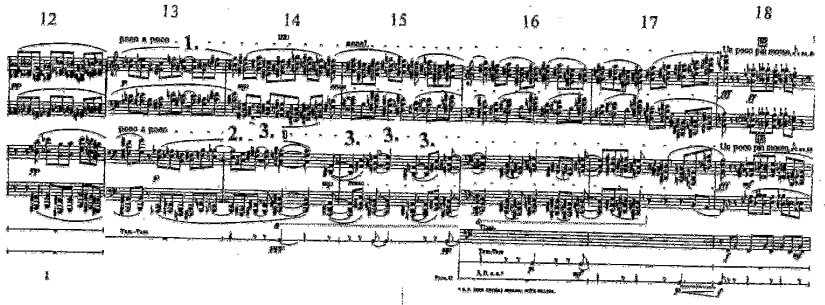
Ex. 9, B
Published Version
(pages 19, measures 128-135)



Ex. 10, A
First Draft of measures 12-15
(PB75FSS1, page 2)



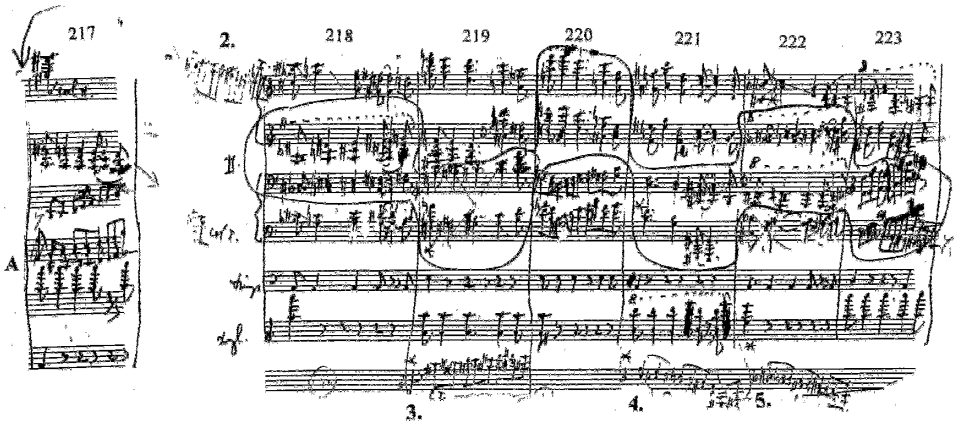
Ex. 10, B
Published Version
(pages 6-7, measures 12-18)



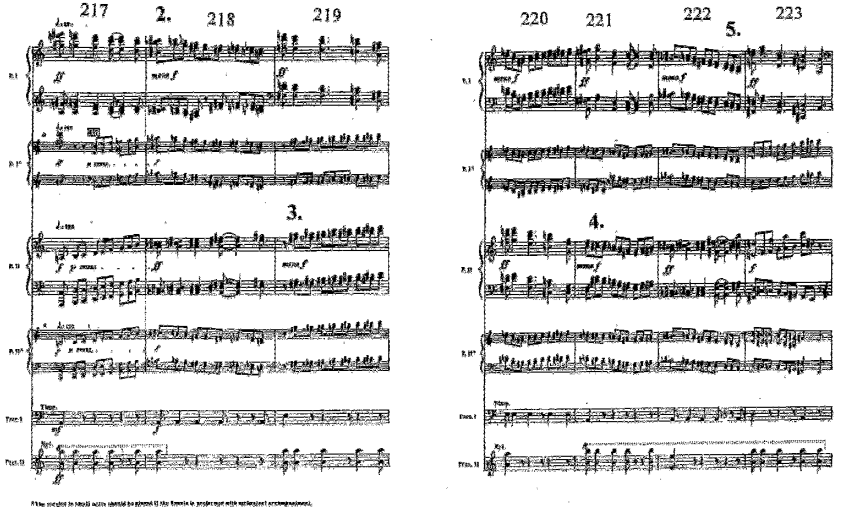
Two eights beats **Three eights beats**

Ex. 11, A
First Draft of measures 217-223
(PB75FSS1, page 11)

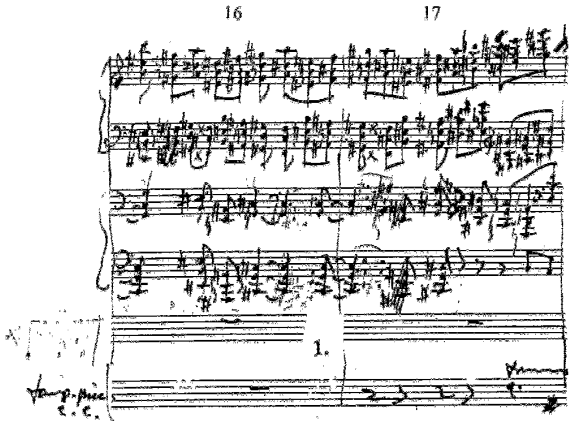
Bartók corrected the rest symbol to A



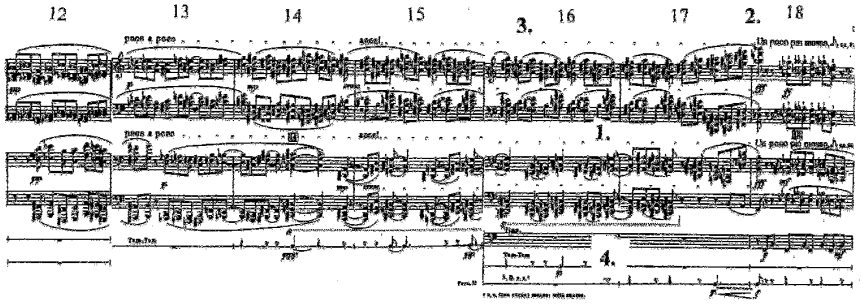
Ex. 11, B
Published Version
(pages 26-27, measures 217-223)



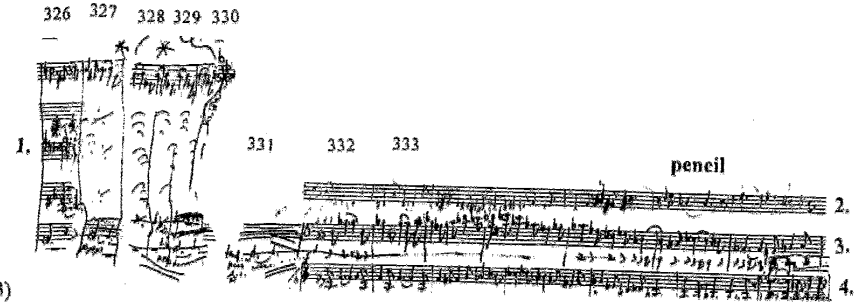
Ex. 12, A
First Draft of measures 16-17
(PB75FSS1, page 2)



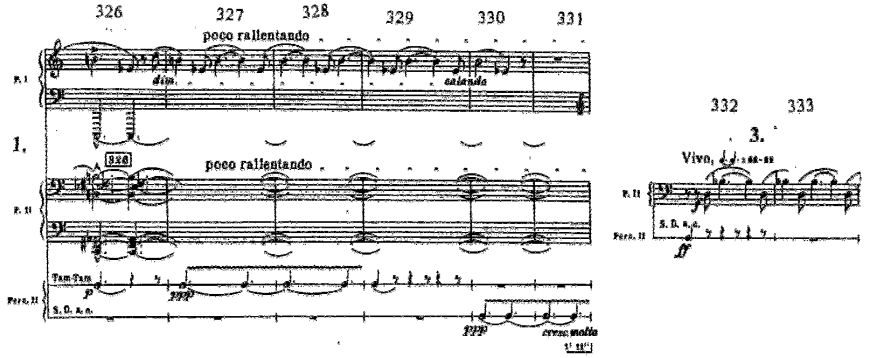
Ex. 12, B
Published Version
(pages 6-7, measures 12-18)



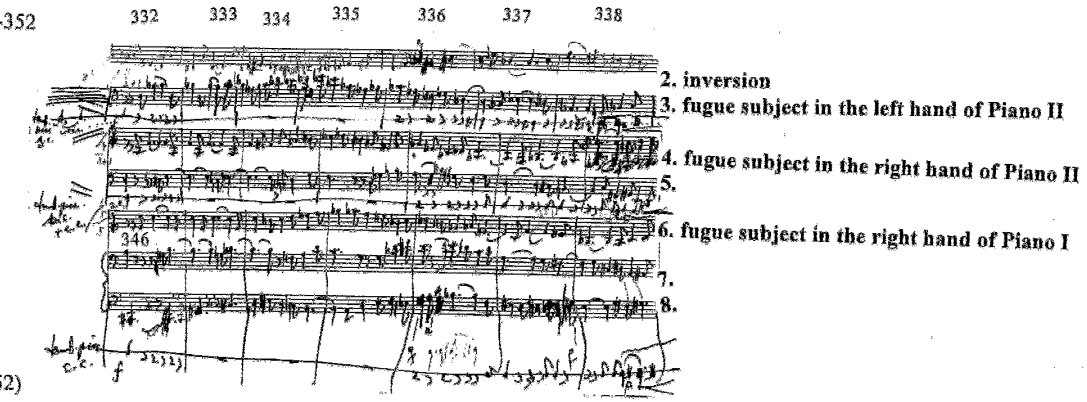
Ex. 13, A
First Draft of measures 326-333
(PB75FSS1, page 16)



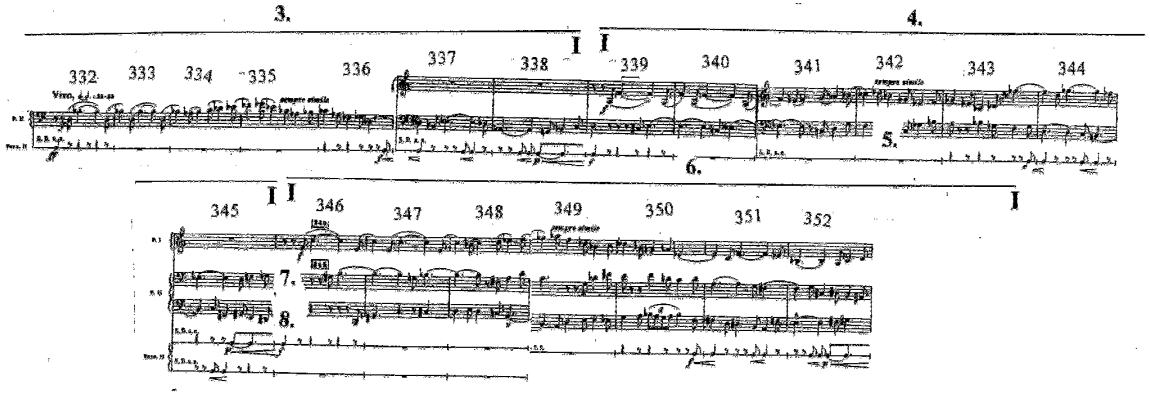
Ex. 13, B
Published Version
(page 40, measures 326-333)



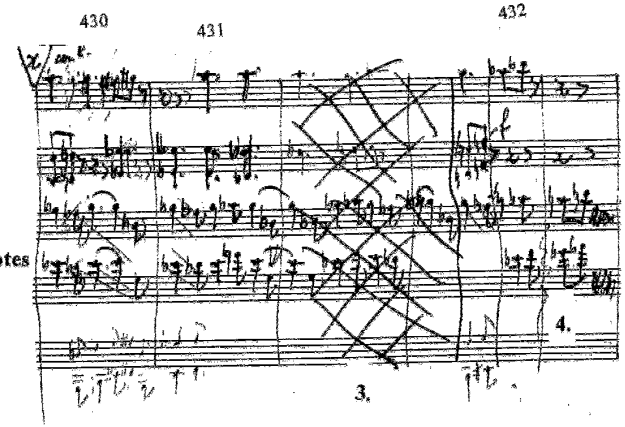
Ex. 14, A
First Draft of measures 332-352
(PB75FSS1, page 16)



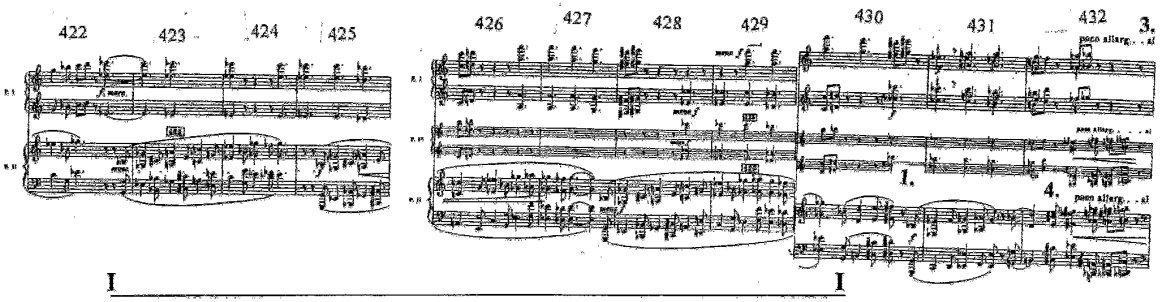
Ex. 14, B
Published Version
(pages 40-41, measures 332-352)



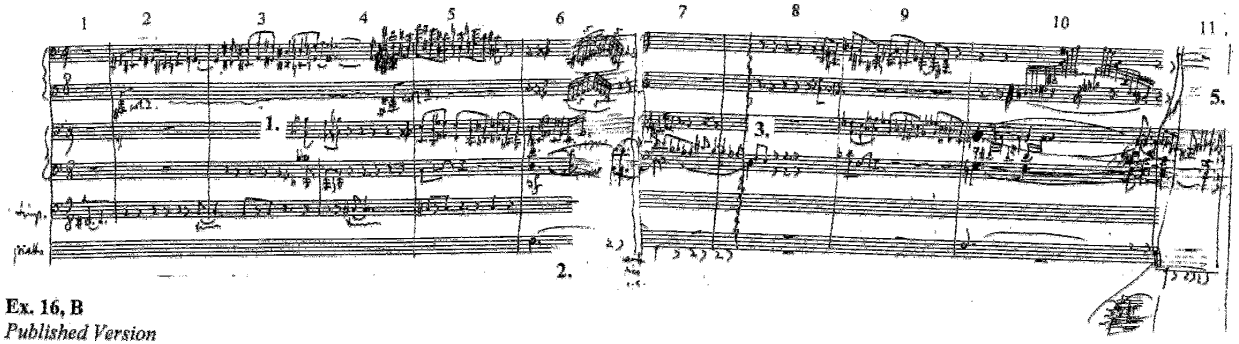
Ex. 15, A
First Draft of measures 430-432
(PB75FSS1, page 19)



Ex. 15, B
Published Version
(pages 48-49, measures 422-432)



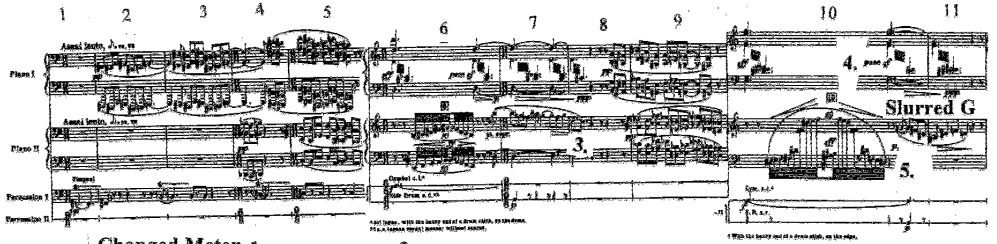
Ex. 16, A
First Draft of measures 1-11
(PB75FSS1, pages 1-2)



Ex. 16, B
Published Version
(pages 5-6, measures 1-11)

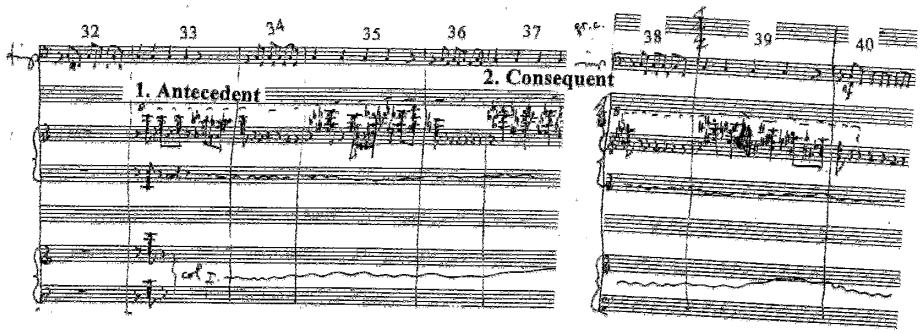
Changed Rhythmic Value

Exchanged Piano Parts



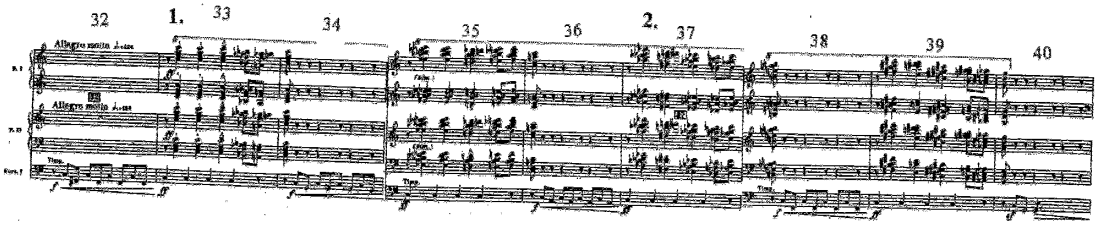
Changed Meter
9/8 - 6/8

Ex. 17, A
First Draft of measures 32-40
(PB75FSS1, page 3)

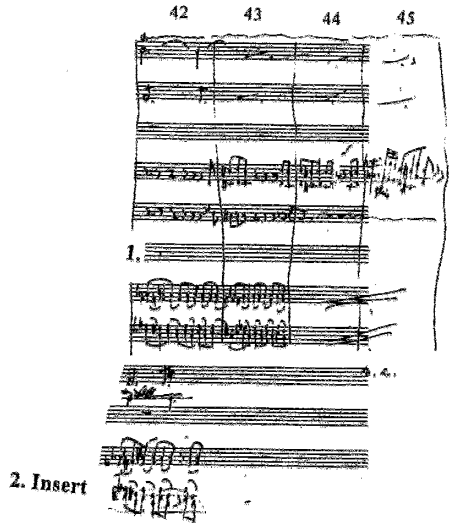


Ex. 17, B
Published Version
(pages 9, measures 32-40)

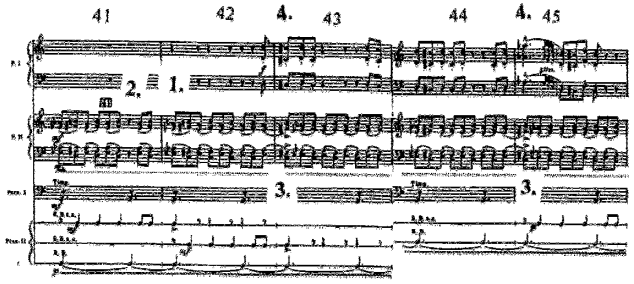
Changed Rhythmic Values



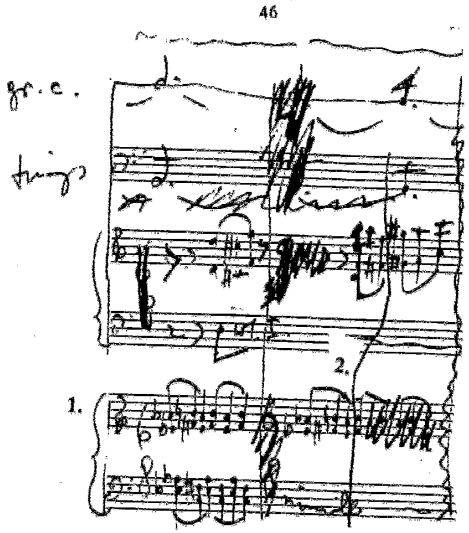
Ex. 18, A
First Draft of measures 41-45
(PB75FSS1, page 3)



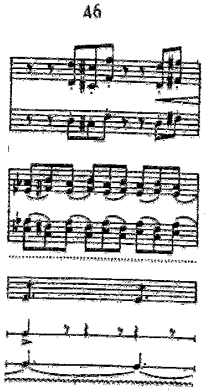
Ex. 18, B
Published Version
(page 10, measures 41-45)



Ex. 19, A
First Draft of measure 46
(PB75FSS1, page 4)



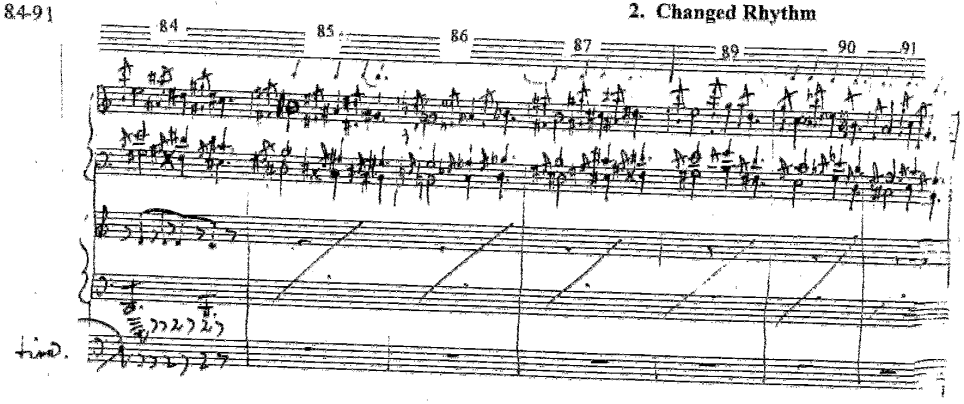
Ex. 19, B
Published Version
(page 10, measure 46)



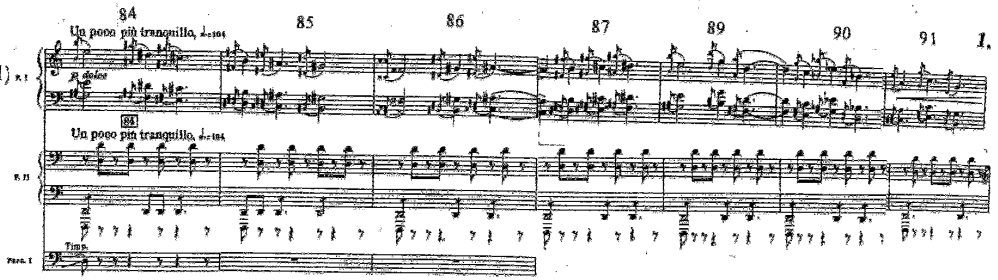
1. Changed Meter

Ex. 20, A
First Draft of measures 84-91
(PB75FSS1, page 6)

2. Changed Rhythm

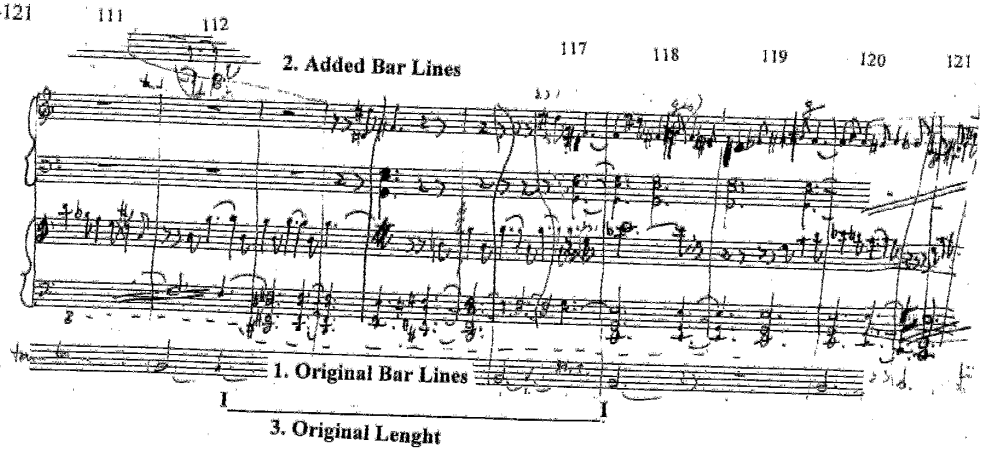


Ex. 20, B
Published Version
(page 15, measures 84-91)

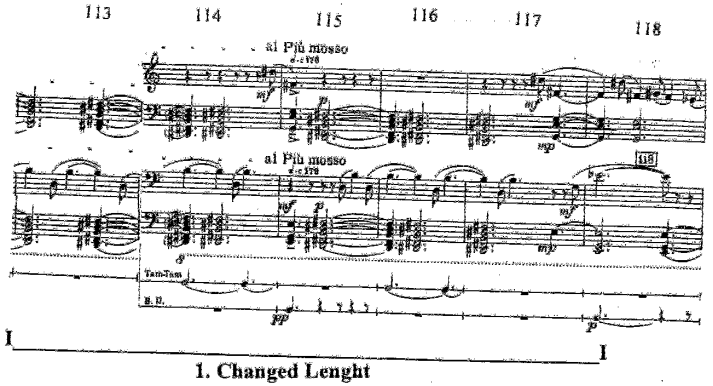


2. Two Measure Groupings

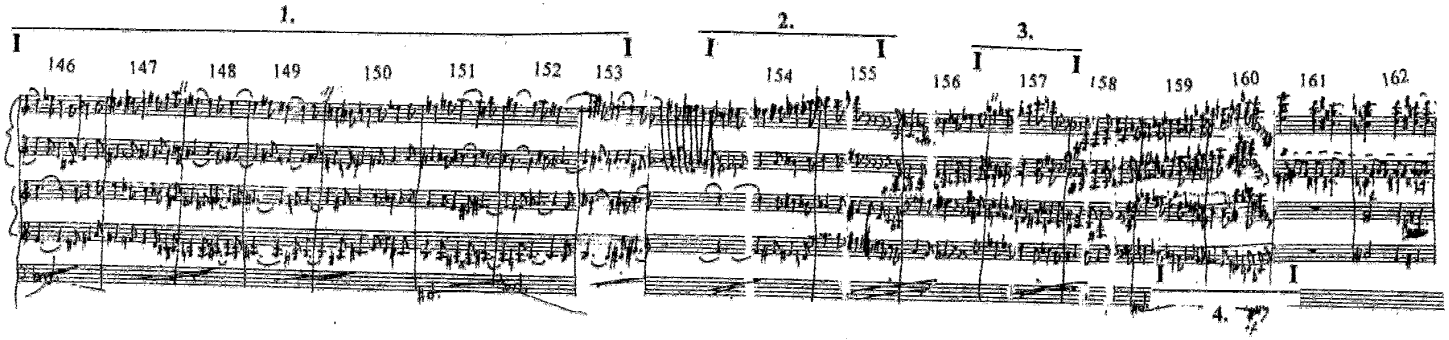
Ex. 21, A
First Draft of measures 111-121
(PB75FSS1, page 7)



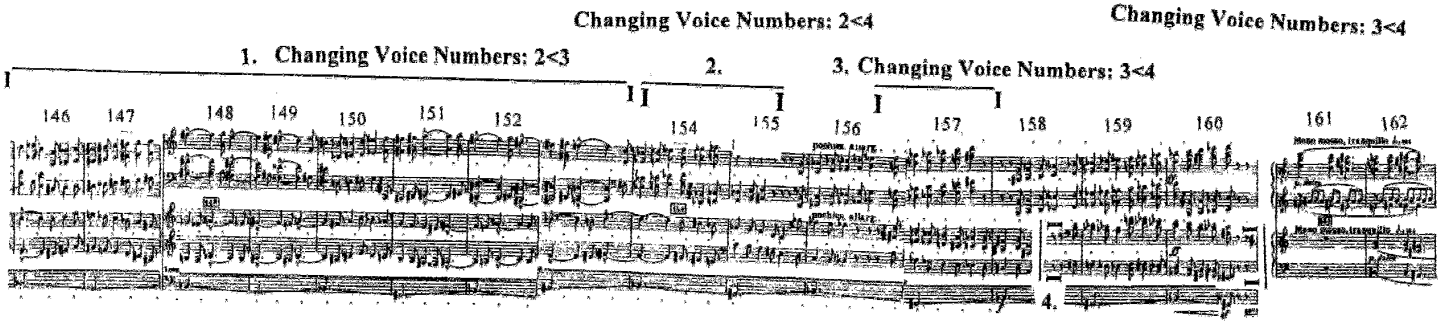
Ex. 21, B
Published Version
(page 18, measures 114-118)



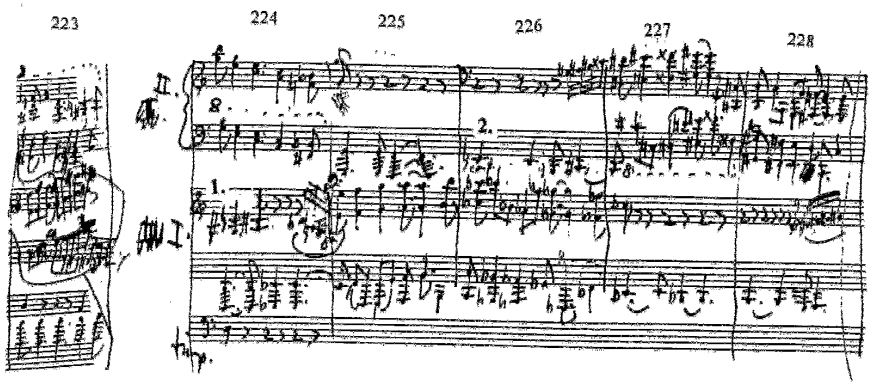
Ex. 22, A
First Draft of measures 146-162
(PB75FSS1, pages 8-9)



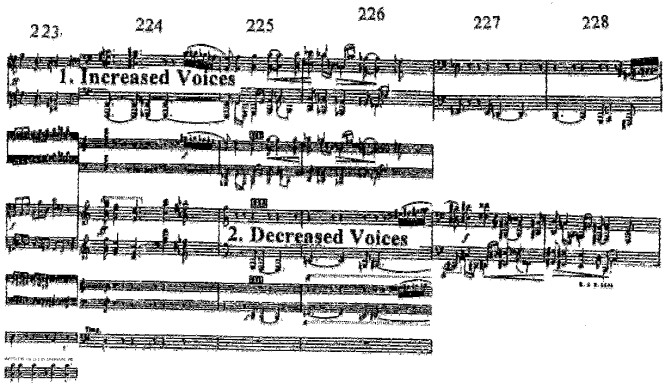
Ex. 22, B
Published Version
(pages 20-21, measures 146-162)



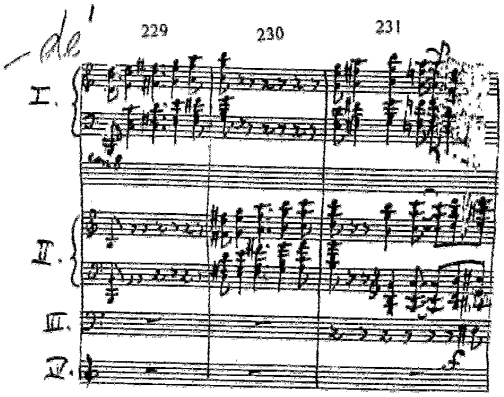
Ex. 23, A
First Draft of measures 223-228
(PB75FSS1, page 11)



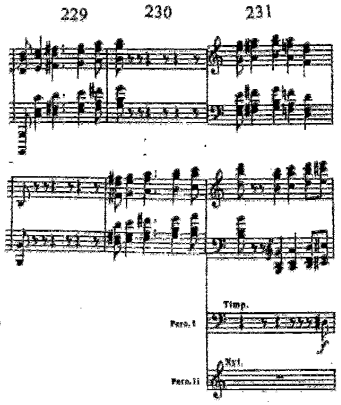
Ex. 23, B
Published Version
(pages 28, measures 223-228)



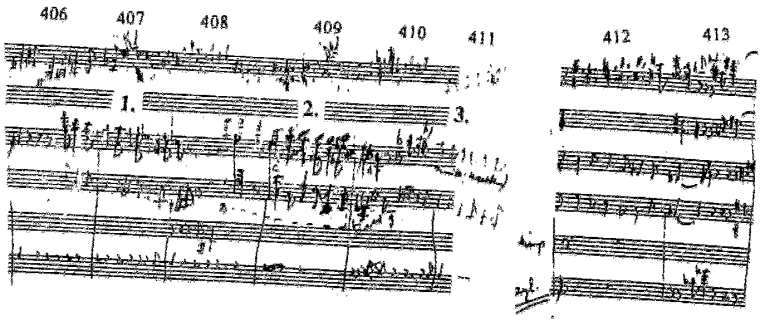
Ex. 24, A
First Draft of measures 229-231
(PB75FSS1, page 37)



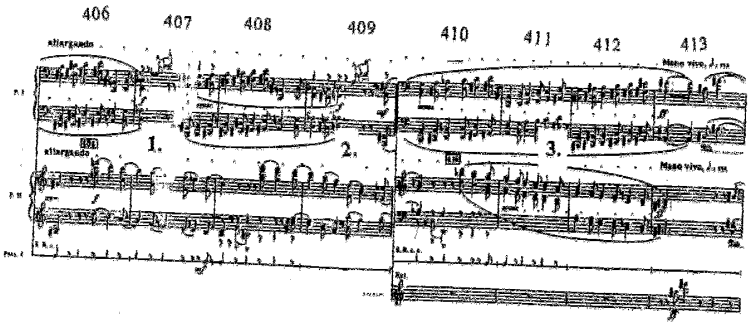
Ex. 24, B
Published Version
(pages 28-29, measures 229-231)



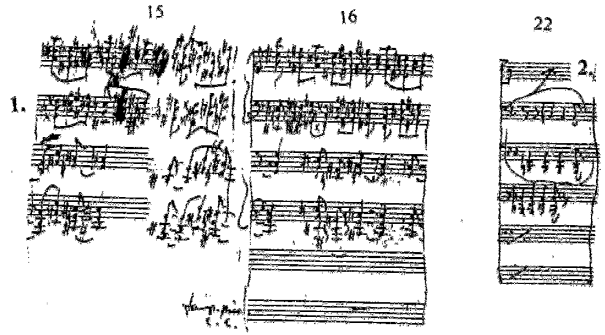
Ex. 25, A
First Draft of measures 406-413
(PB75FSS1, pages 18-19)



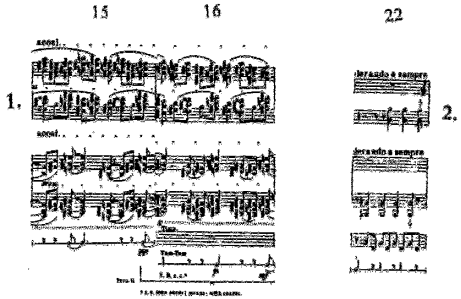
Ex. 25, B
Published Version
(pages 46-47, measures 406-413)



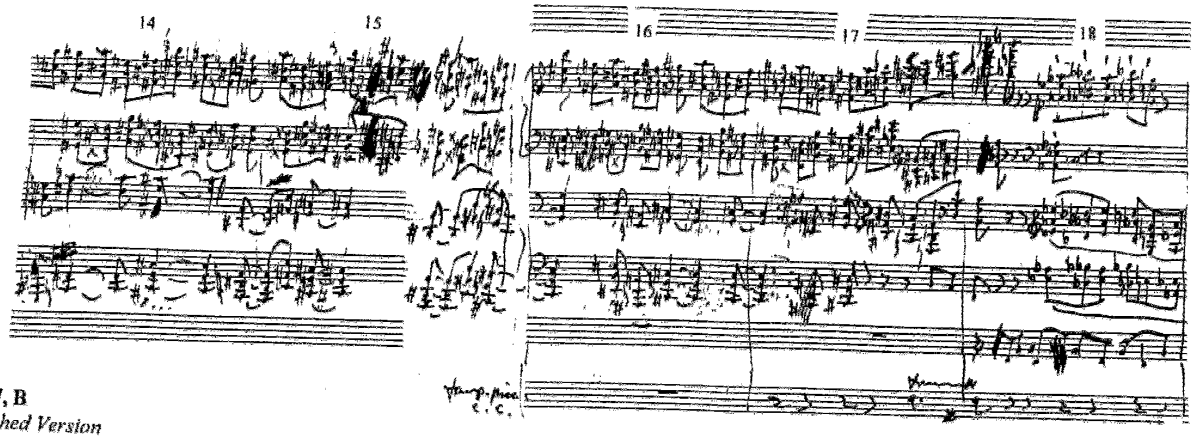
Ex. 26, A
First Draft of measures 15, 16, 22
(PB75FSS1, pages 2 and 4)



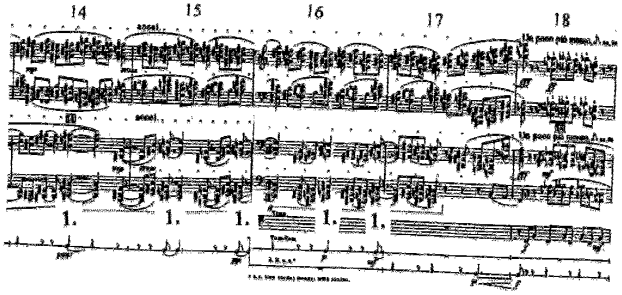
Ex. 26, B
Published Version
(pages 6-7, measures 15-16, 22

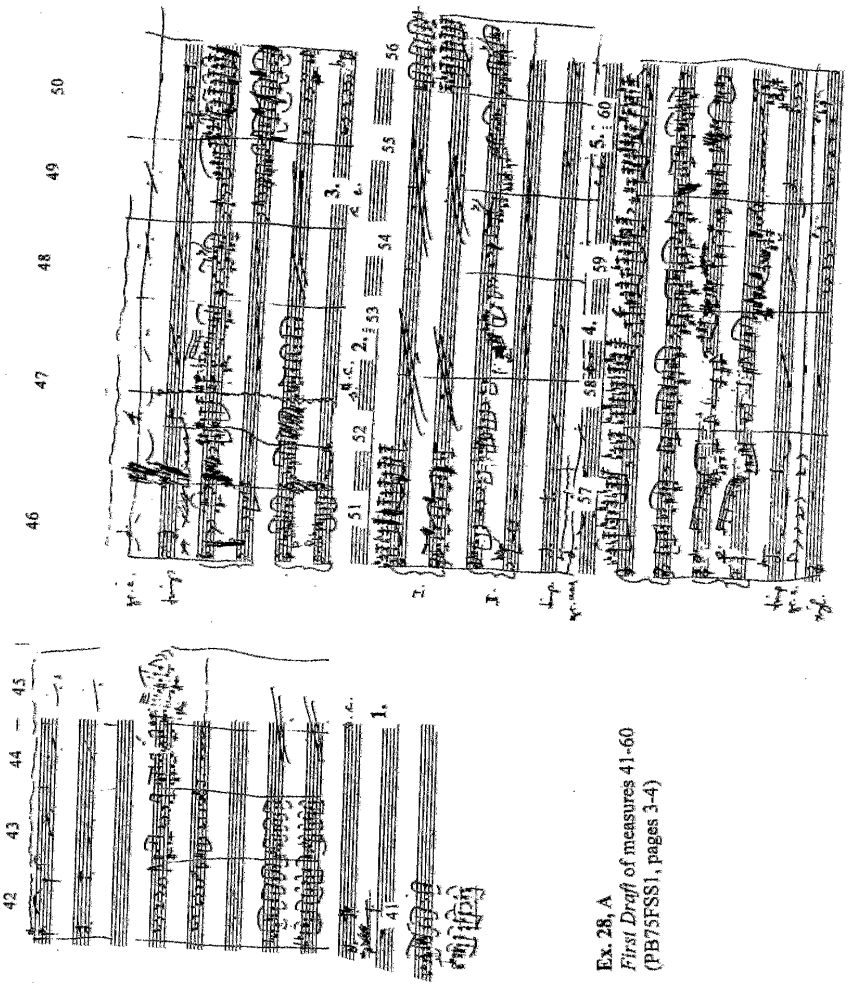


Ex. 27, A
First Draft of measures 14-18
(PB75FSS1, page 2)



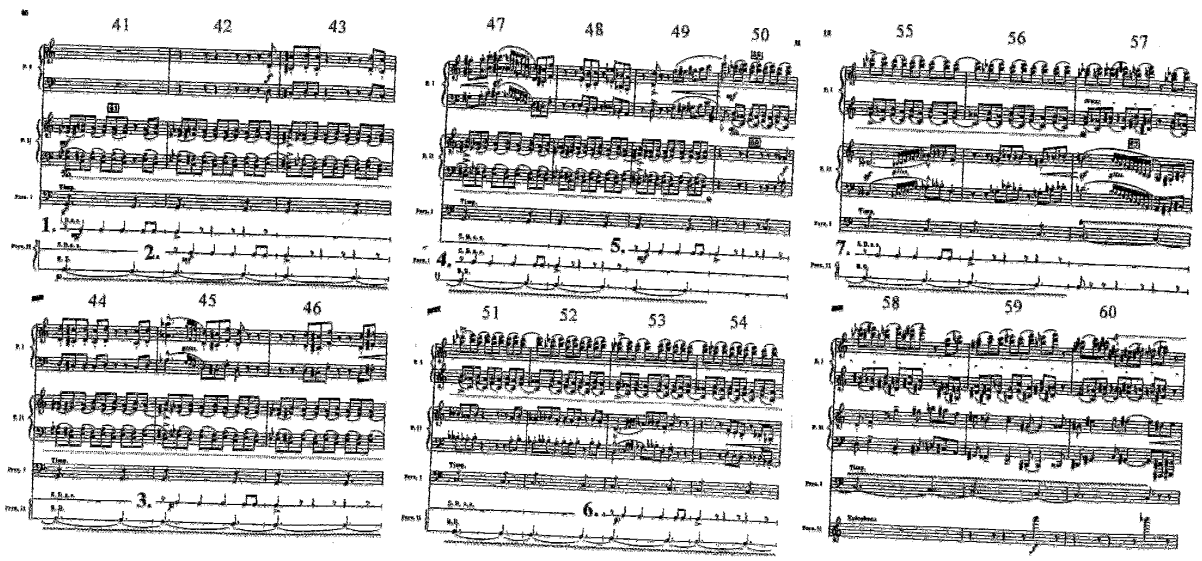
Ex. 27, B
Published Version
(pages 6-7, measures 14-18)



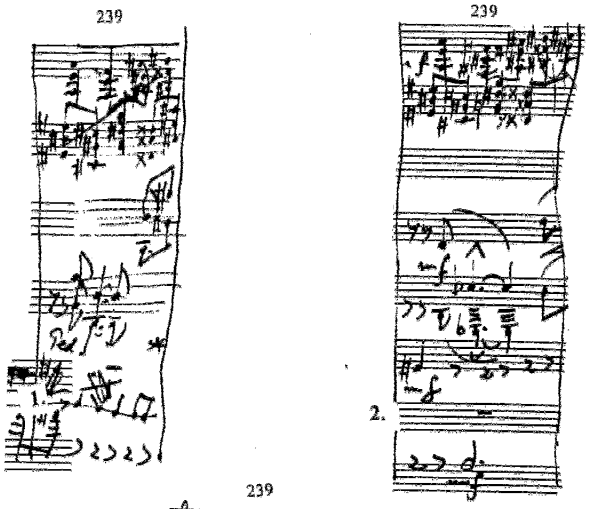


Ex. 28, A
First Draft of measures 41–60
(PB75FSS1, pages 3-4)

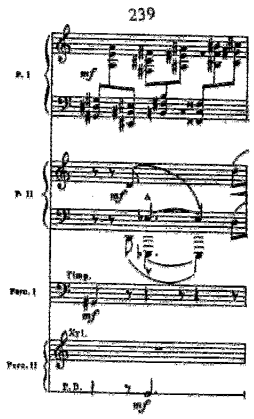
Ex. 28, B
Published Version
(pages 10-12, measures 41-60)



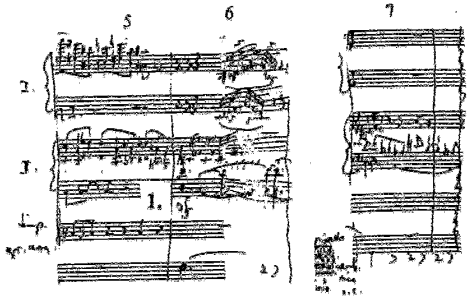
Ex. 29, A
First Draft of measures 41-60
(PB75FSS1, pages 12 and 37, m. 239)



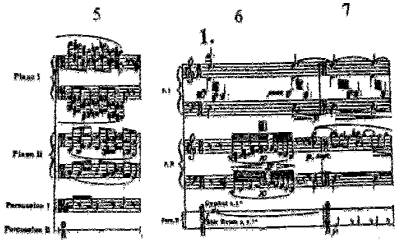
Ex. 29, B
Published Version
(page 30, measure 239)



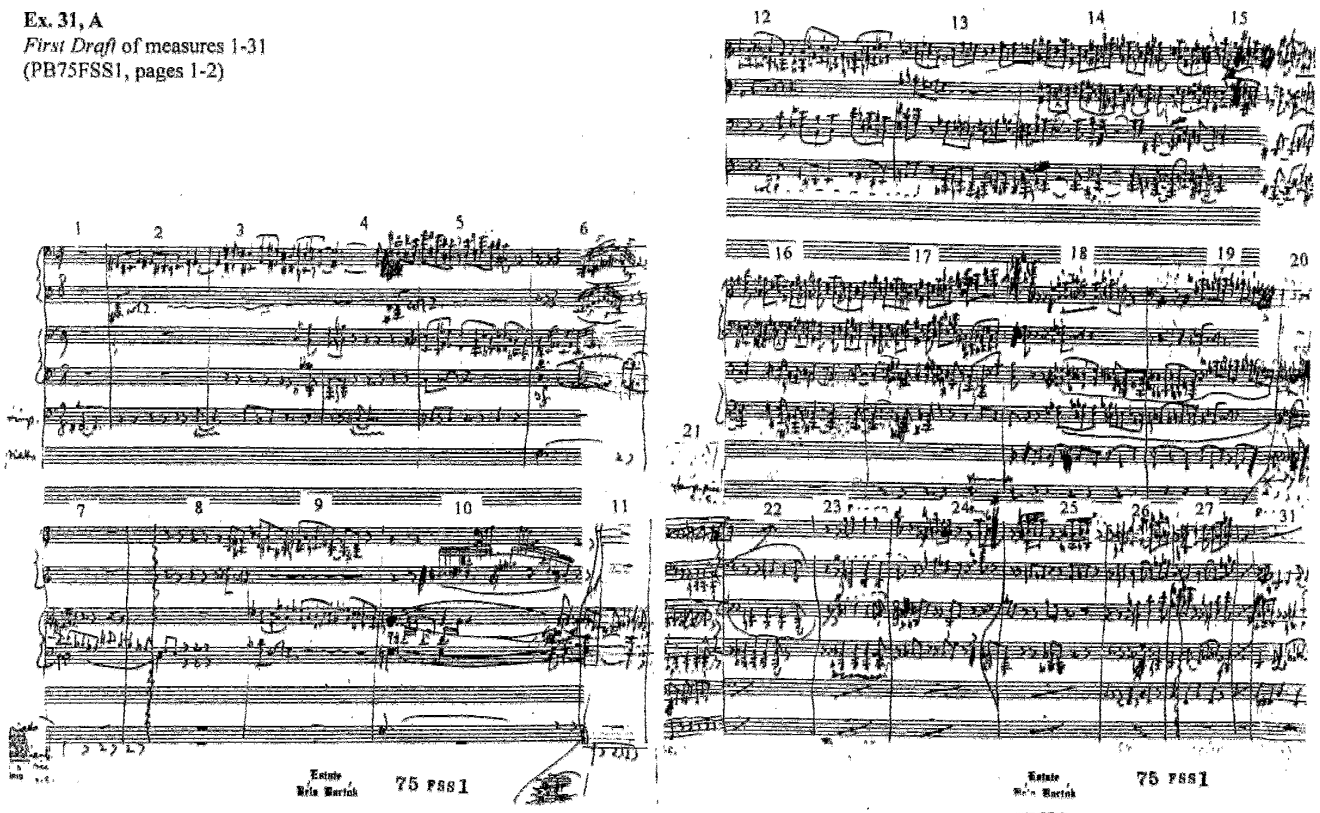
Ex. 30, A
First Draft of measures 5-7
(PB75FSS1, page 1)



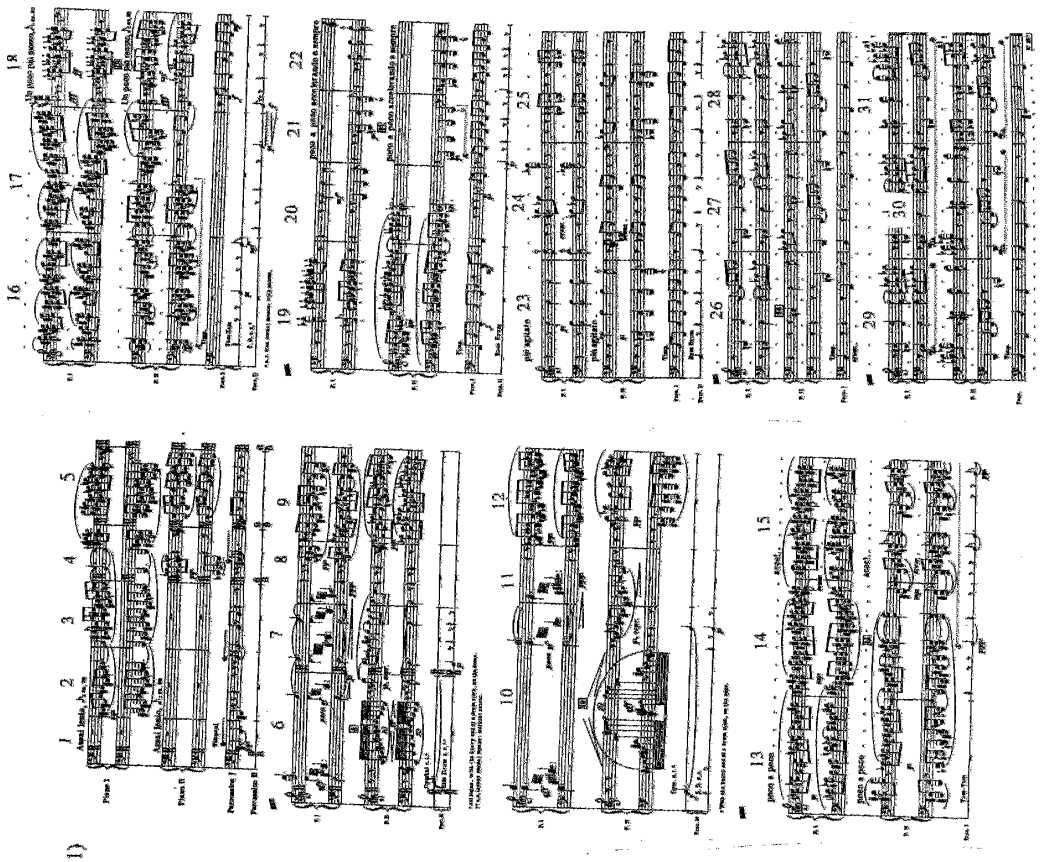
Ex. 30, B
Published Version
(page 5, measures 5-7)



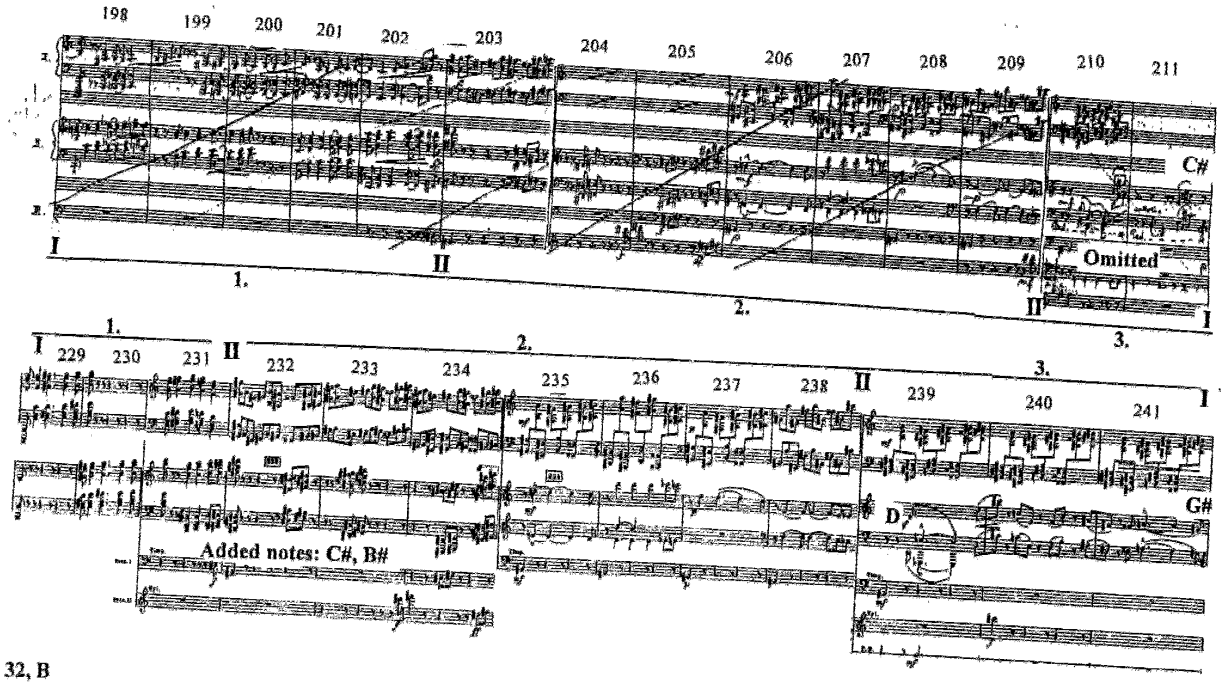
Ex. 31, A
First Draft of measures 1-31
(PB75FSS1, pages 1-2)



Ex. 31, B
Published Version
(pages 5-7, measures 1-31)

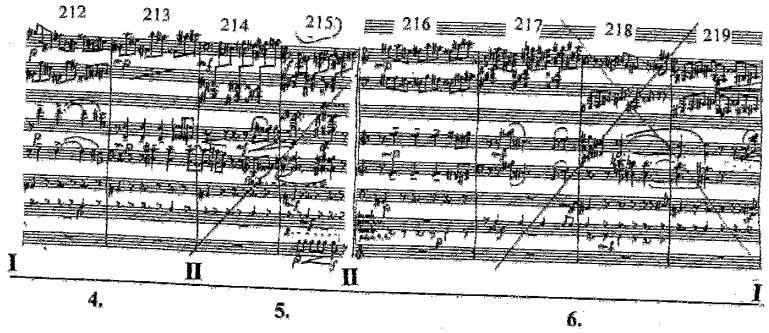


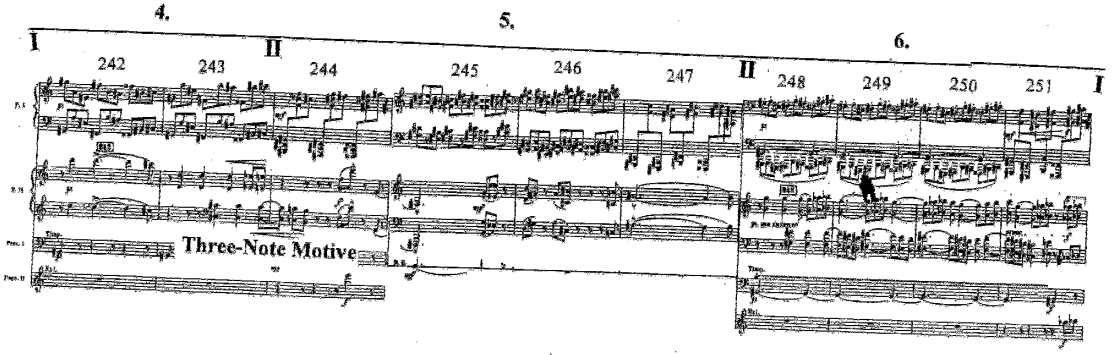
Ex. 32, A
First Draft of measures 198-211
(PB75FSID1ID3, pages 12-14)



Ex. 32, B
Published Version
(pages 28-34, measures 229-241)

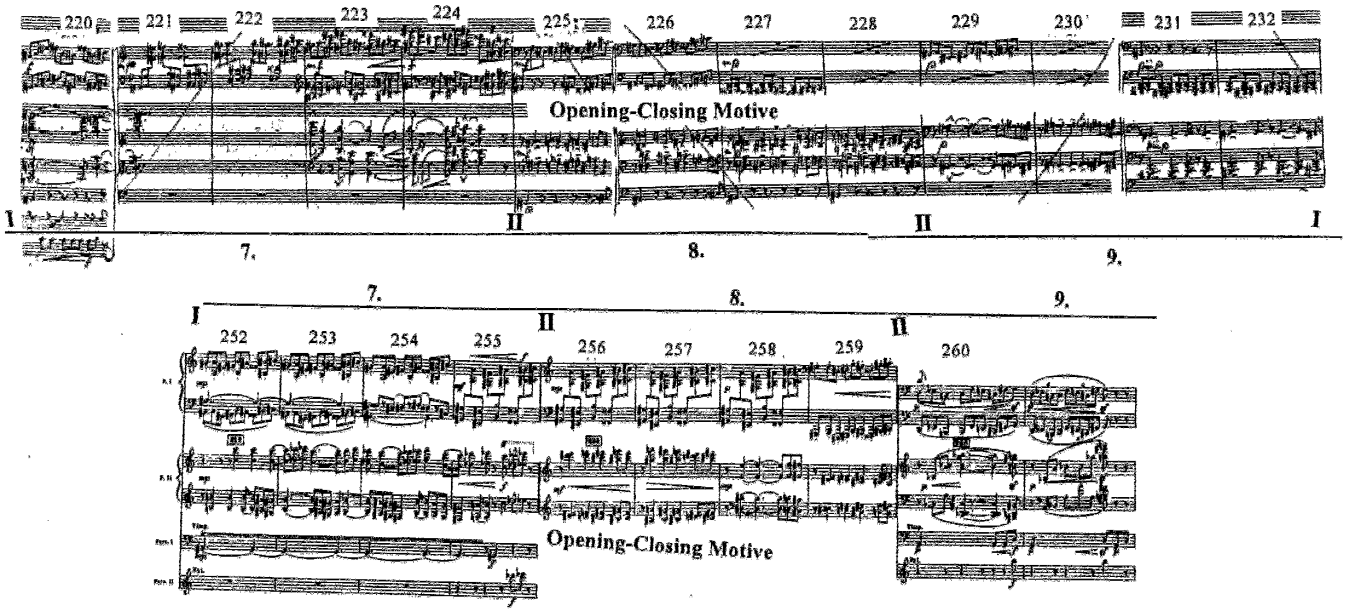
Ex. 32, A
First Draft of measures 212-219
(PB75FSID1ID3, pages 12-14)





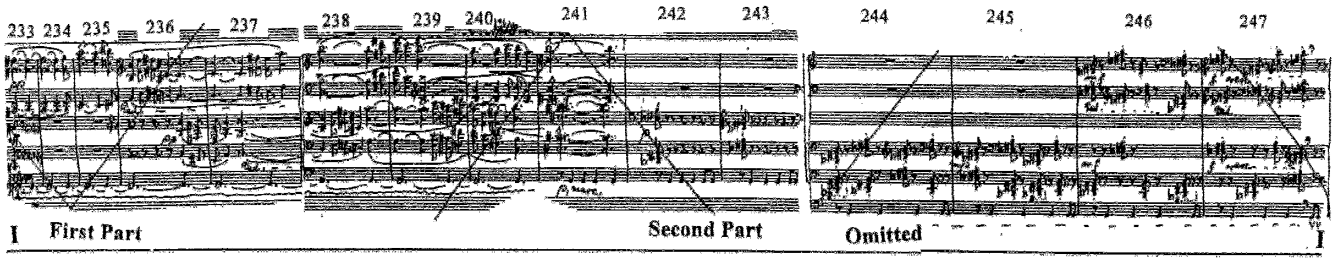
Ex. 32, B
Published Version
(pages 28-34, measures 242-251)

Ex. 32, A
First Draft of measures 220-232
(PB75FSID11D3, pages 12-14)



Ex. 32, B
Published Version
(pages 28-34, measures 252-261)

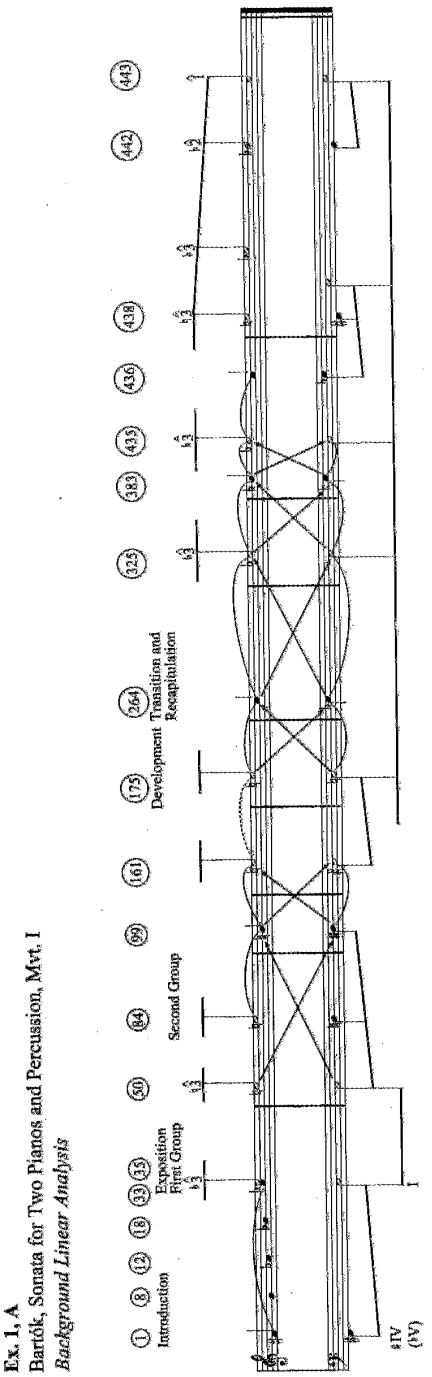
Ex. 32, A
First Draft of measures 233-247
(PB75FSID1ID3, pages 12-14)



Ex. 32, B
Published Version
(pages 28-34, measures 262-273)

APPENDIX B: MUSICAL EXAMPLES FOR CHAPTER 3

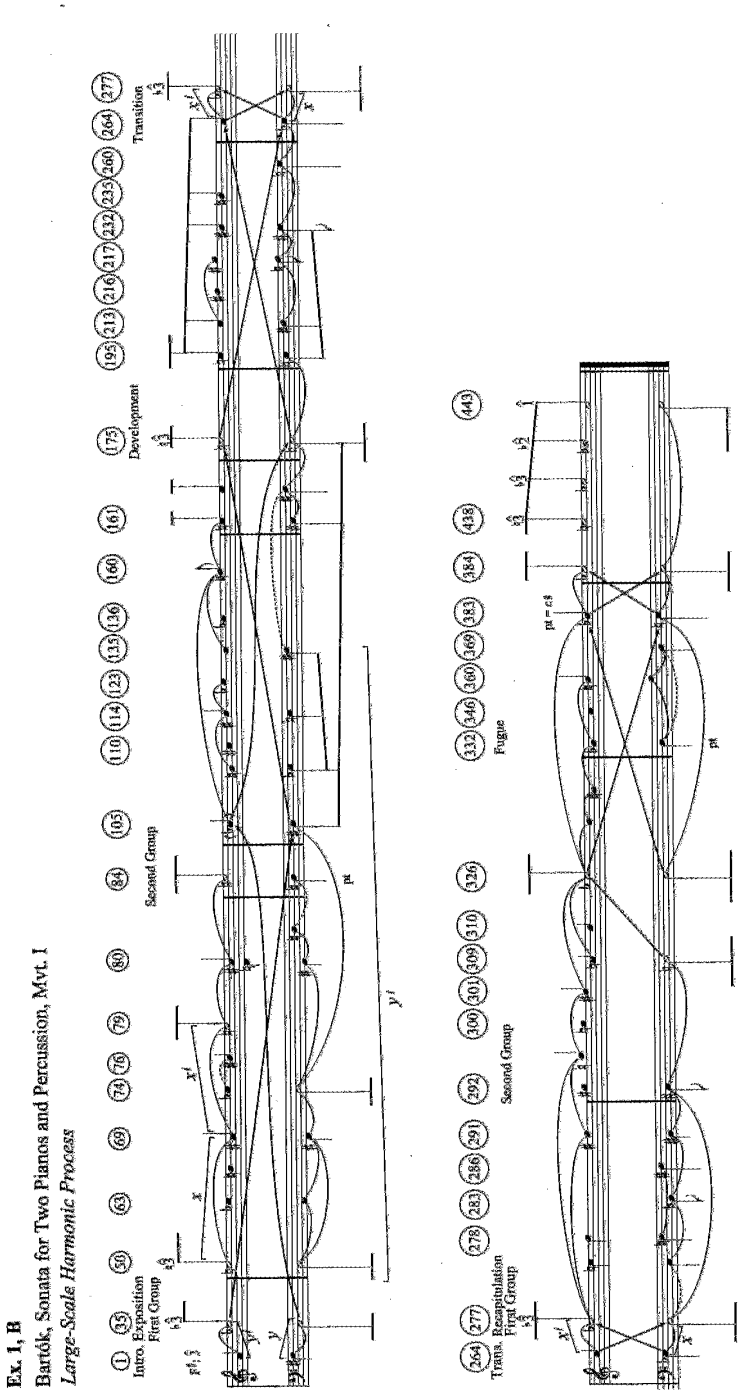
Ex. 1, A
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Background Linear Analysis



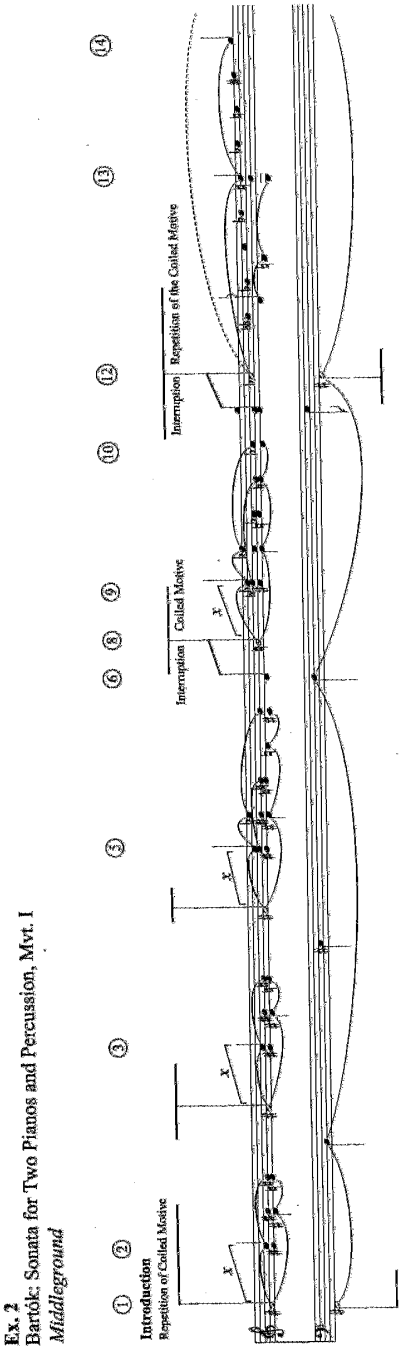
Ex. 1, B

Bartók, Sonata for Two Pianos and Percussion, Mvt. I

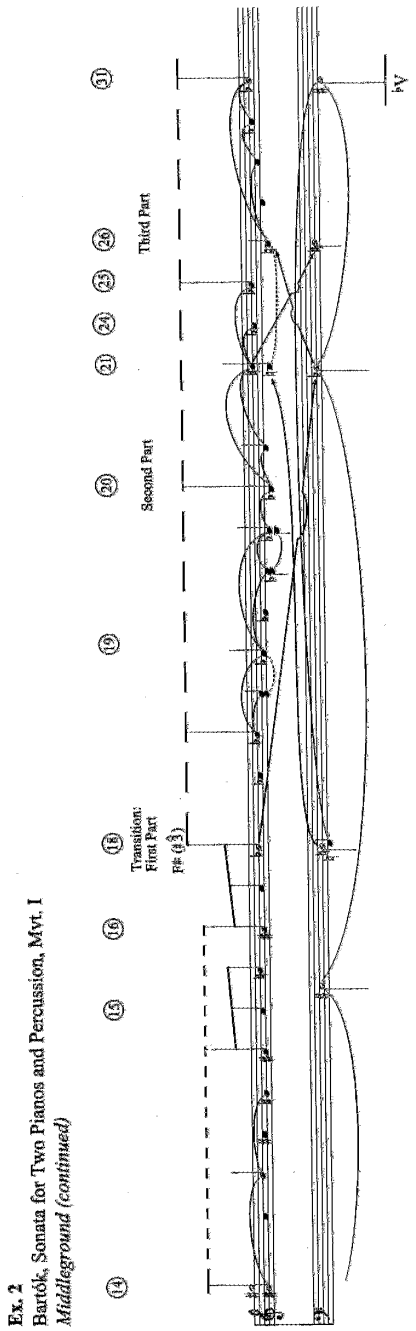
Large-Scale Harmonic Process



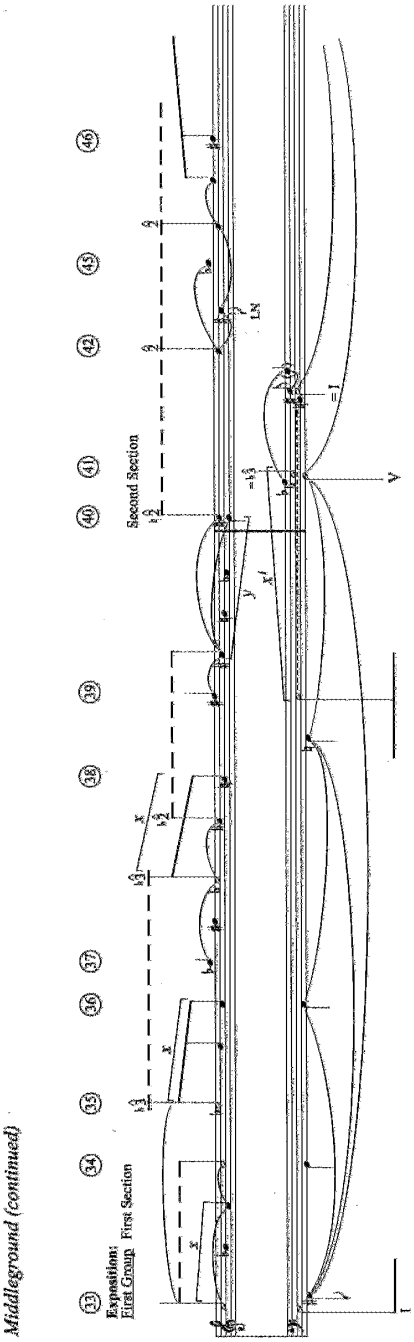
Ex. 2
Bartók: Sonata for Two Pianos and Percussion, Mvt. I
Middleground



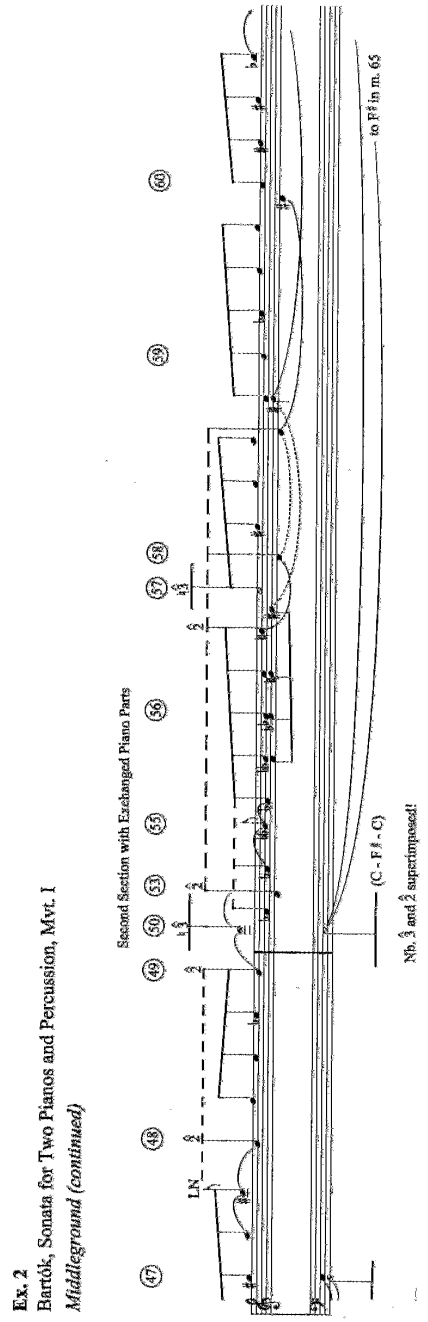
Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



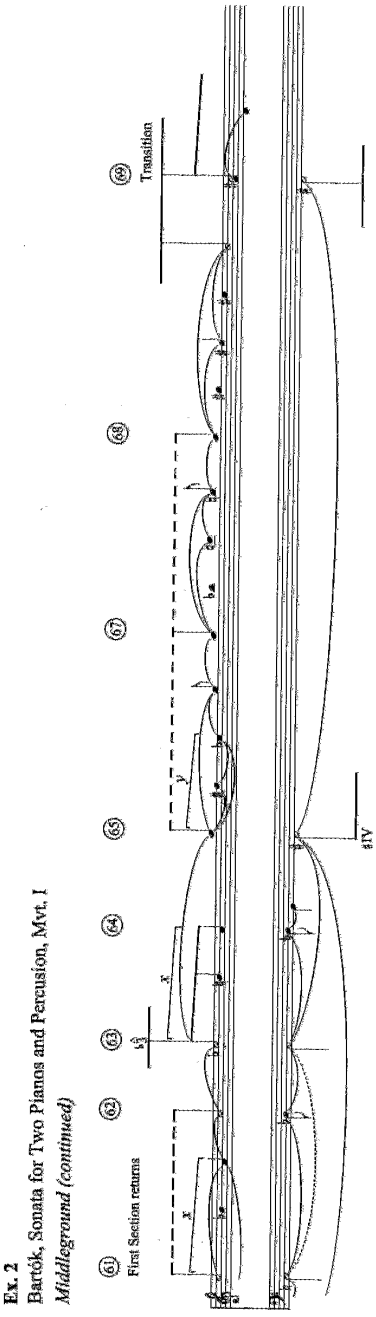
Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



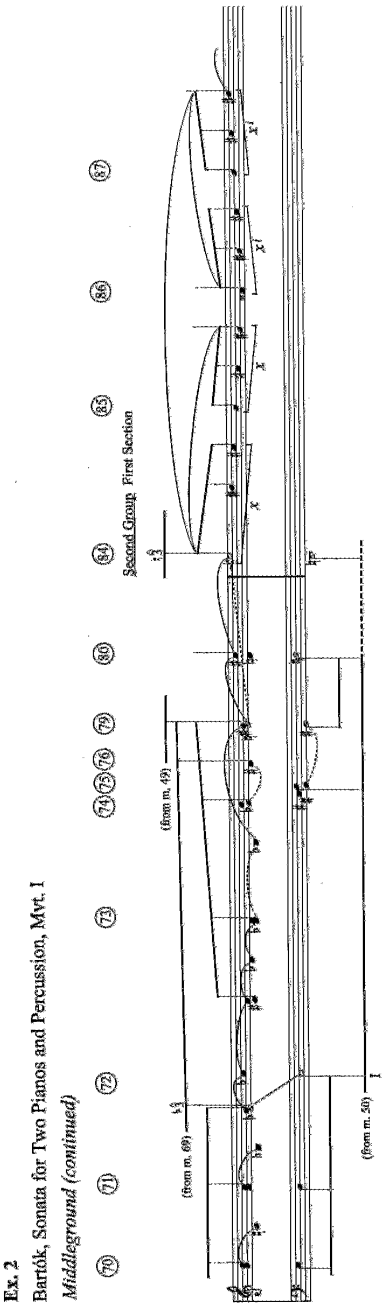
Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



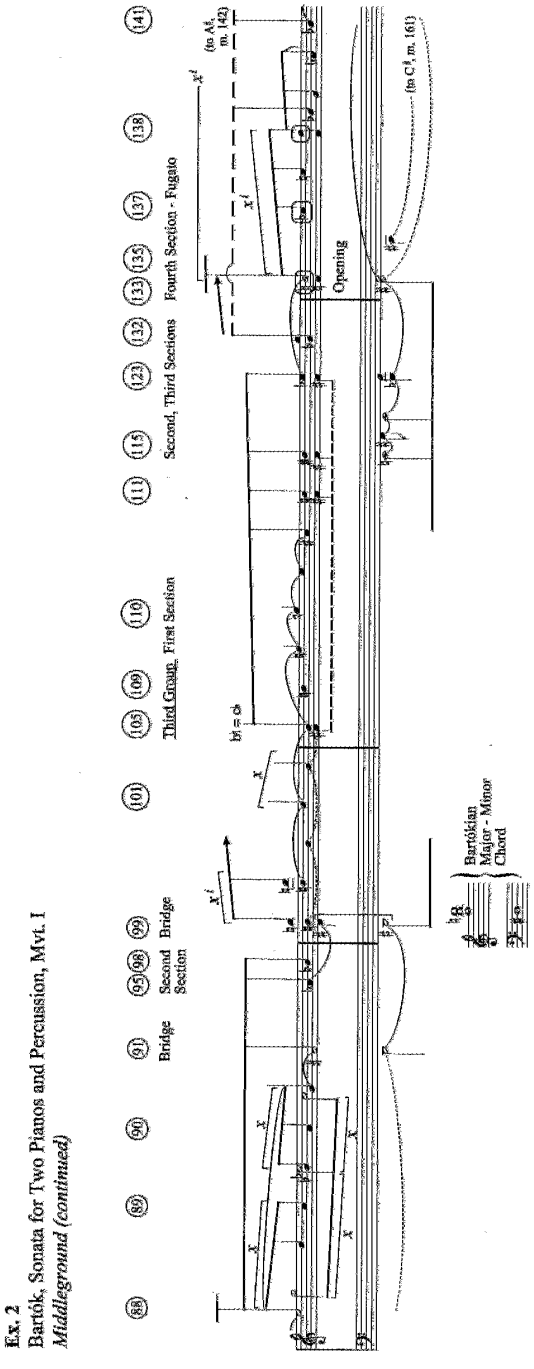
Ex. 2

Bartók, Sonata for Two Pianos and Percussion, Mvt. I

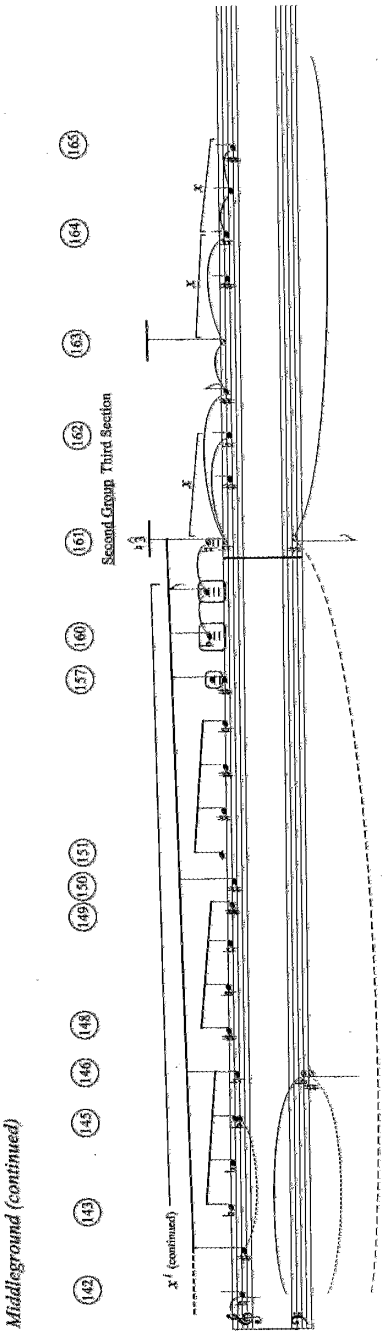
Middleground (continued)



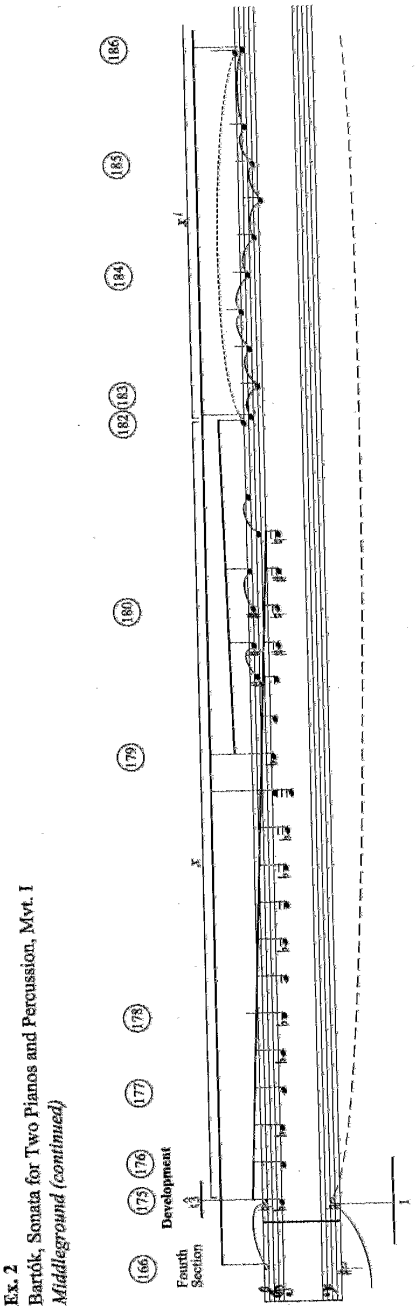
Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



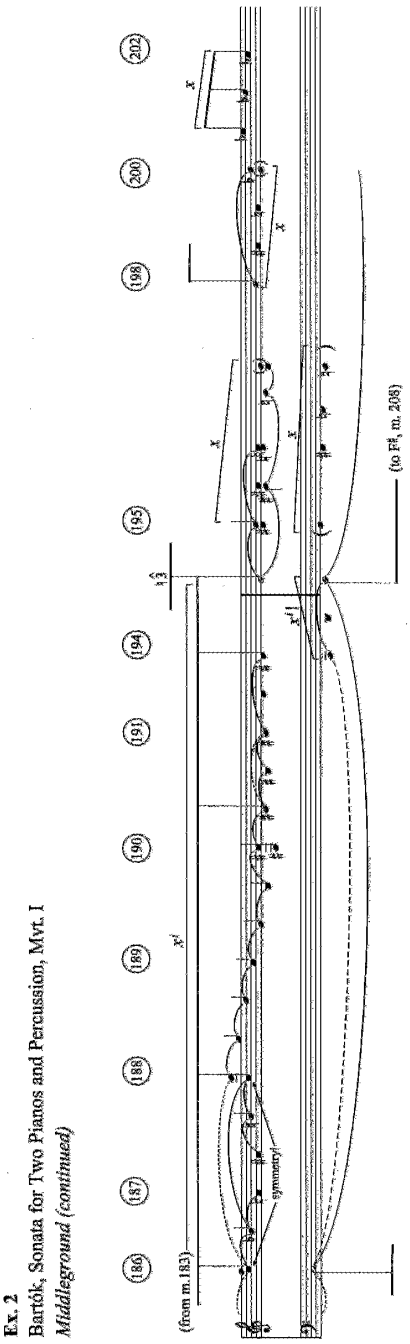
Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



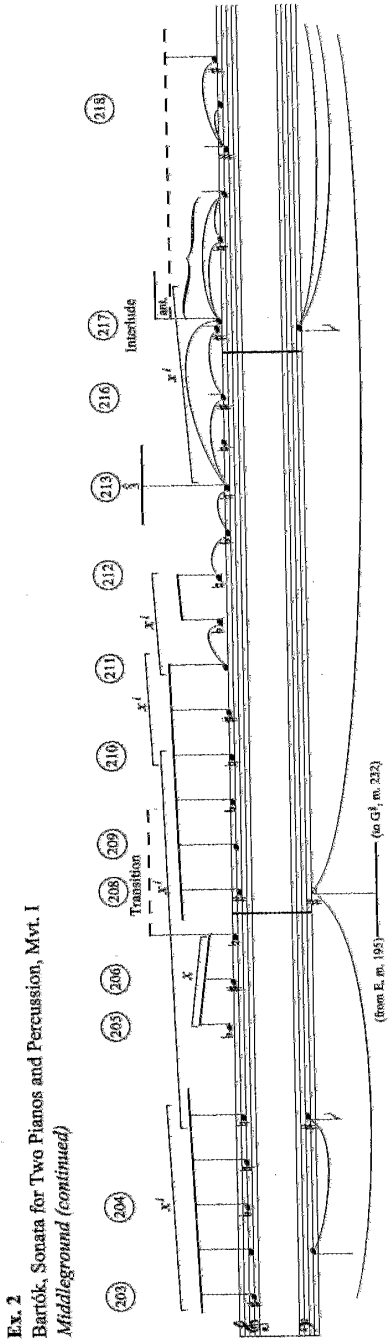
Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



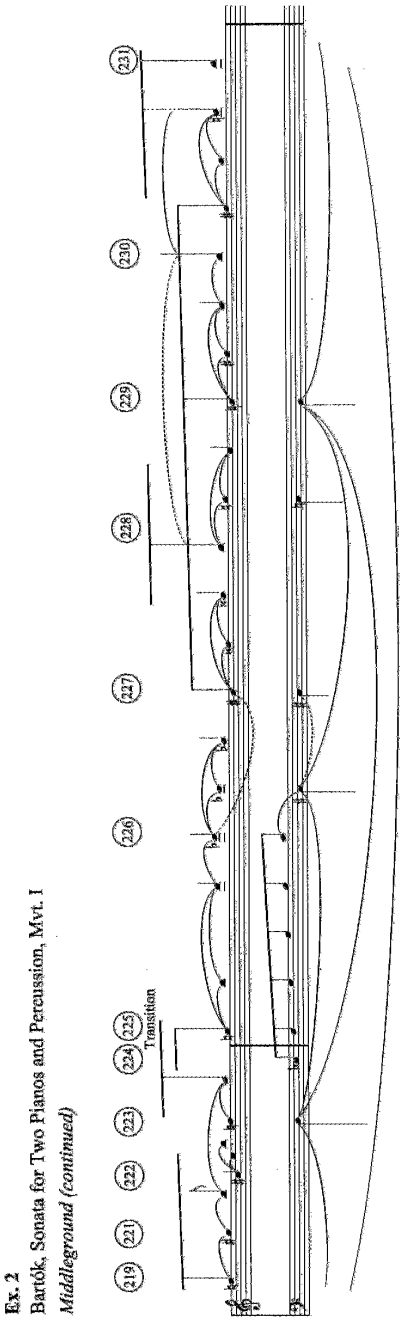
Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



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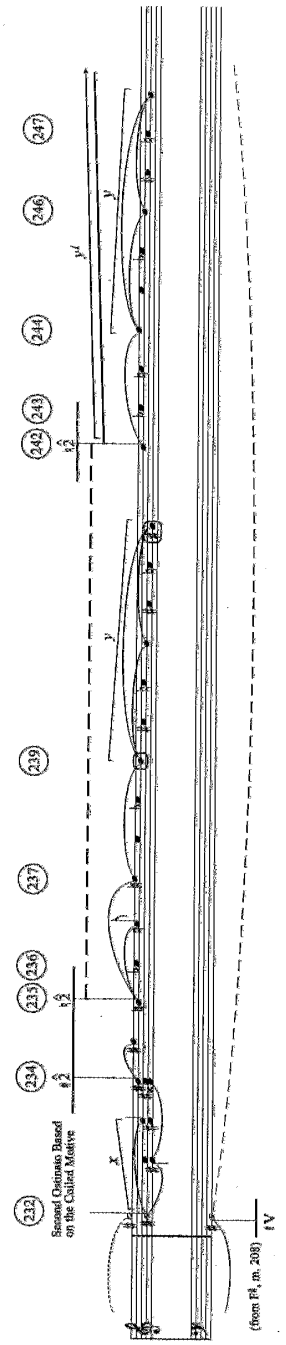
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



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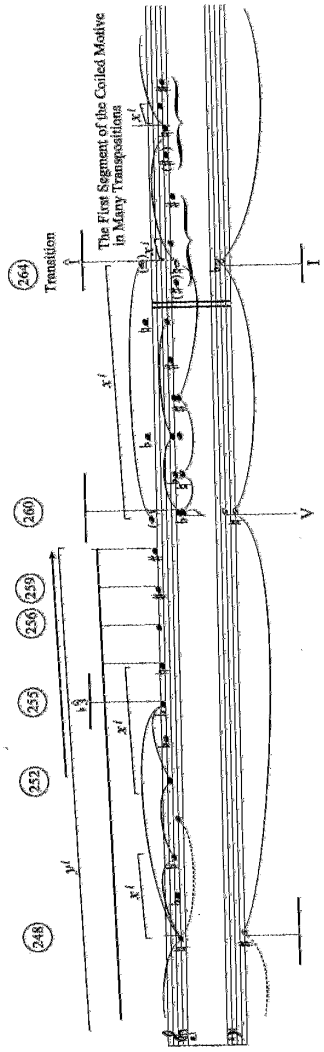
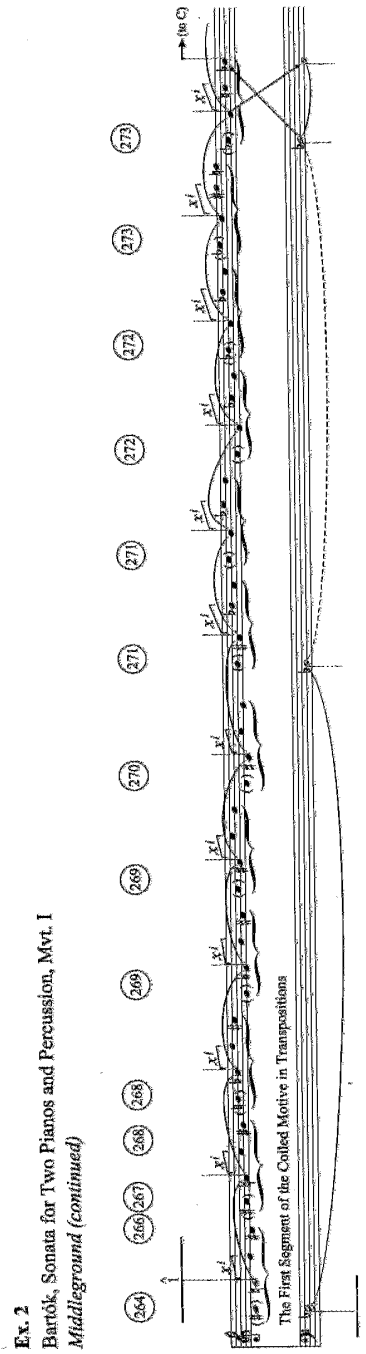
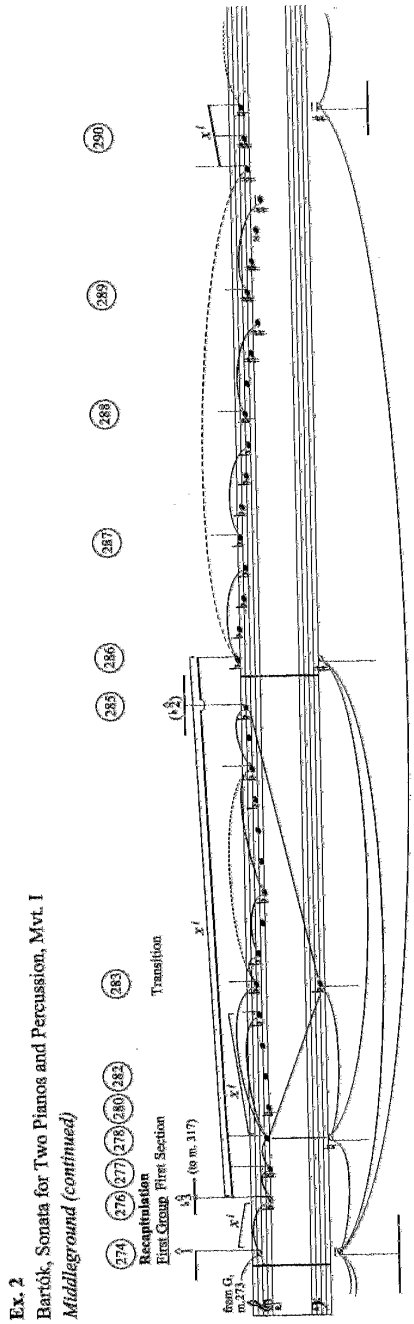
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



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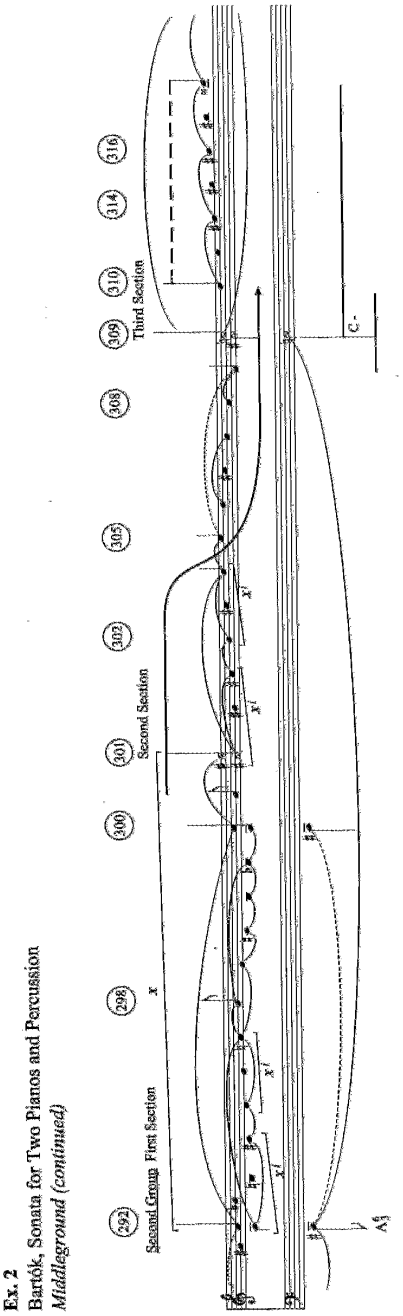
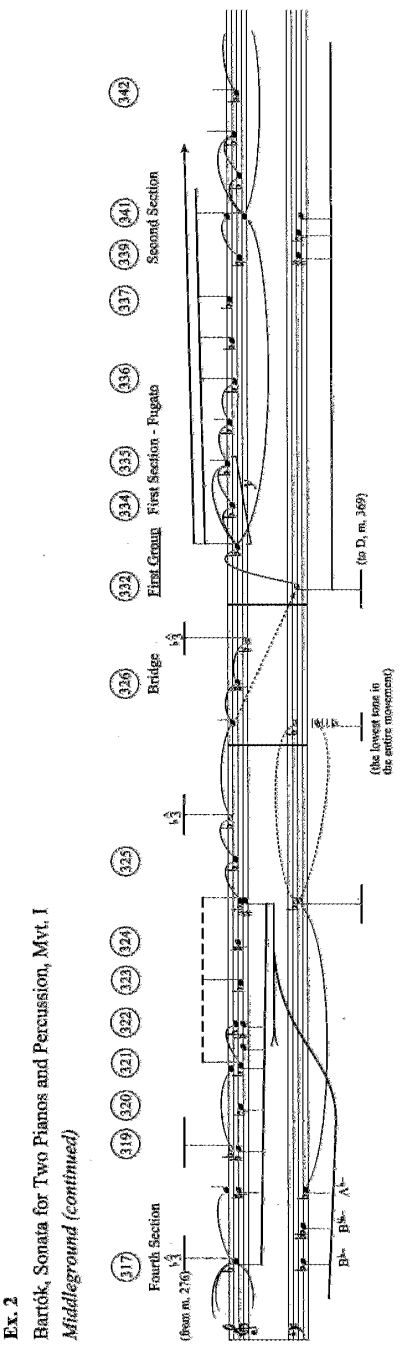
Bartók, Sonata for Two Pianos and Percussion
Middleground (continued)



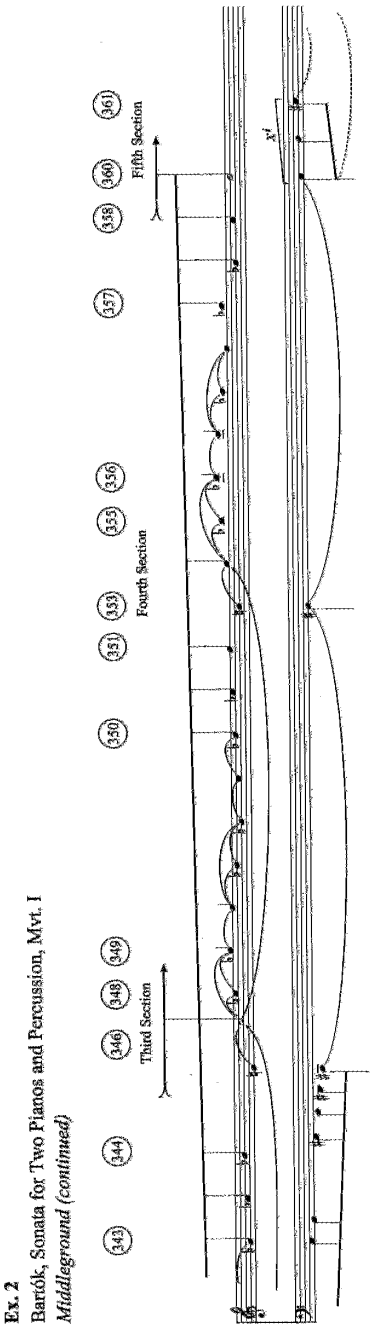
Ex. 2

Bartók, Sonata for Two Pianos and Percussion, Mvt. I

Middleground (continued)



Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



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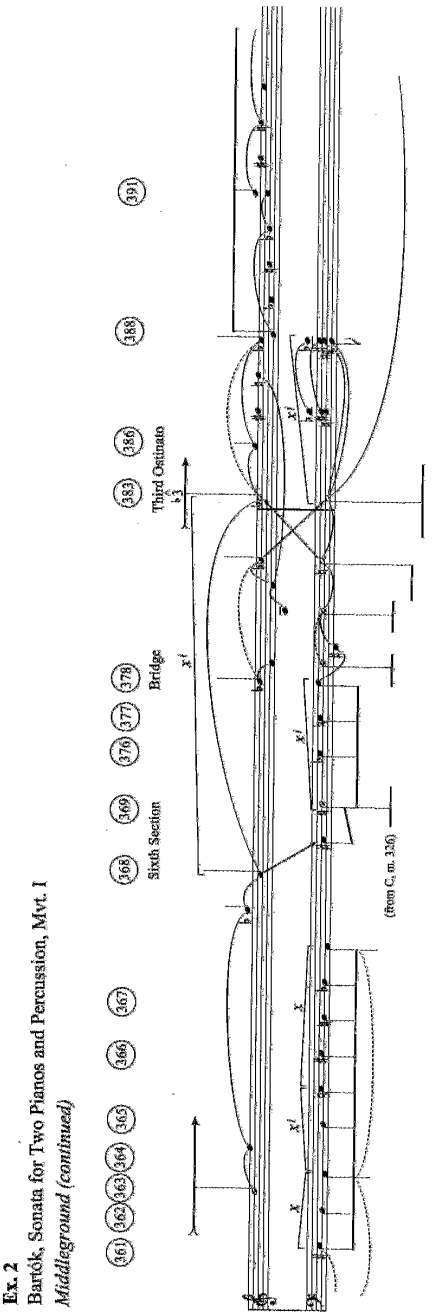
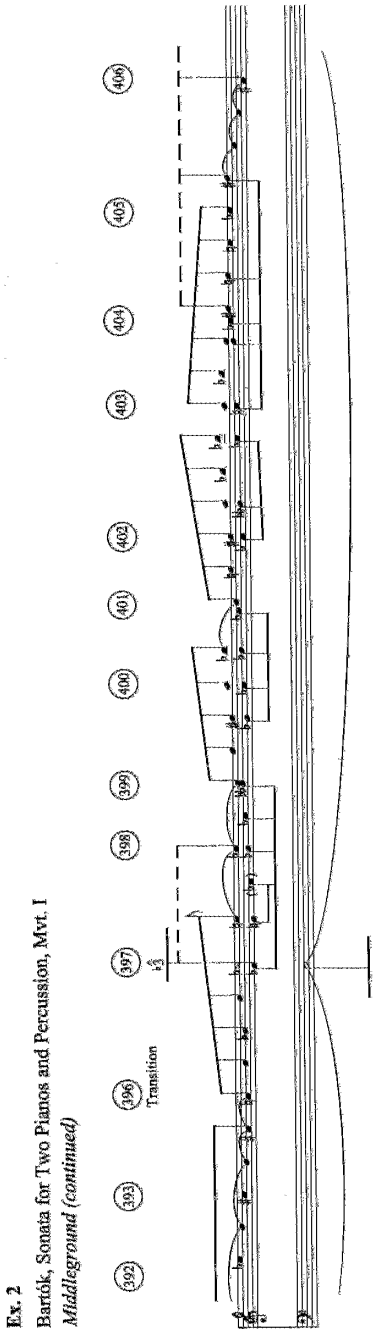
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (continued)



Ex. 2

Bartók, Sonata for Two Pianos and Percussion, Mvt. I

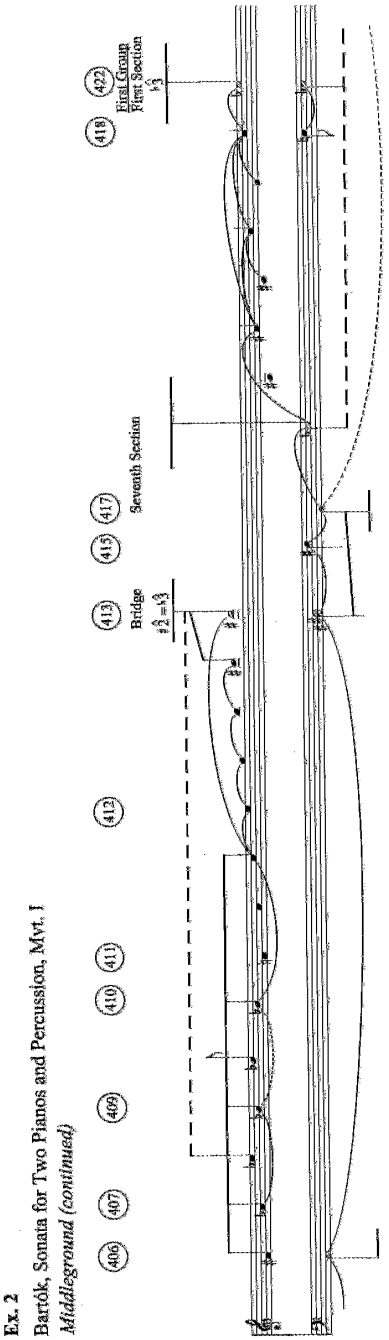
Middleground (continued)



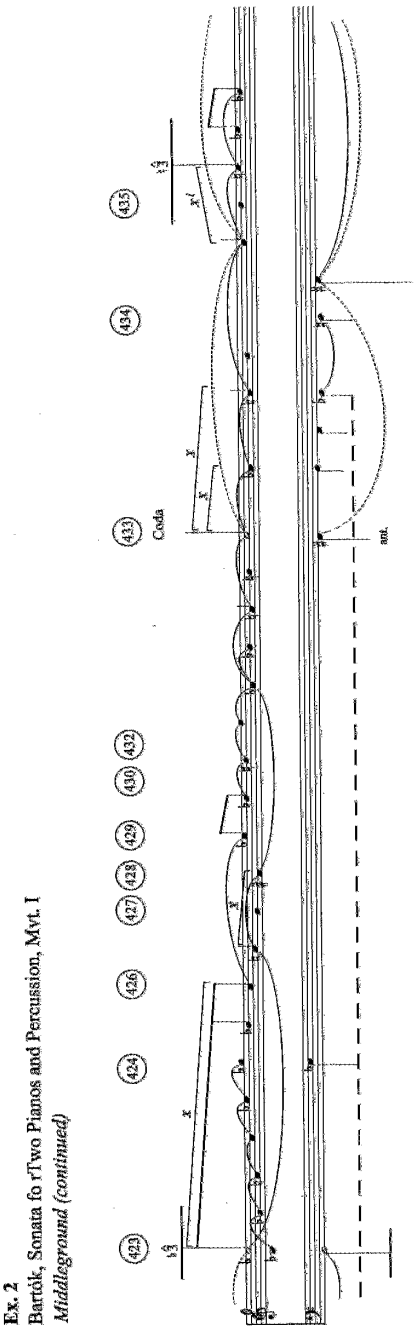
Ex. 2

Bartók, Sonata for Two Pianos and Percussion, Mvt. I

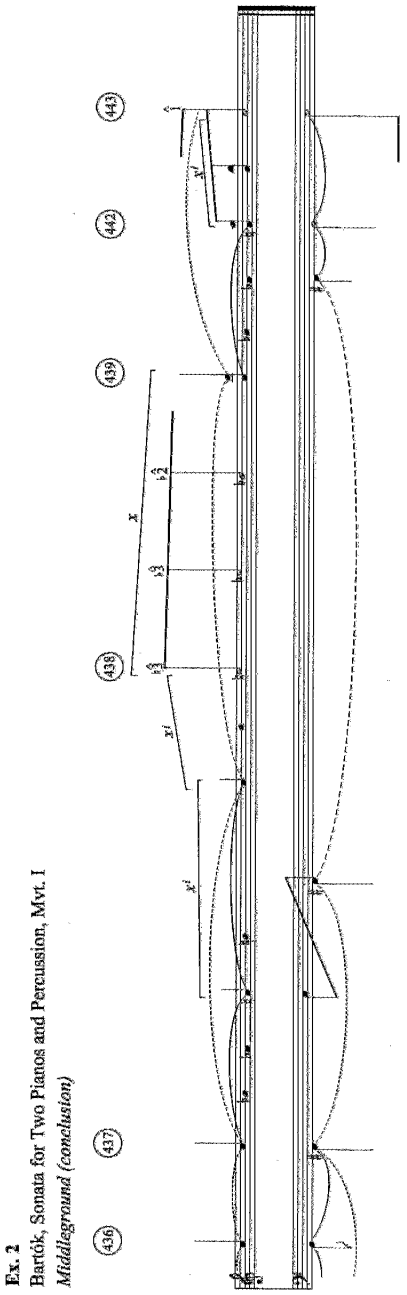
Middleground (continued)

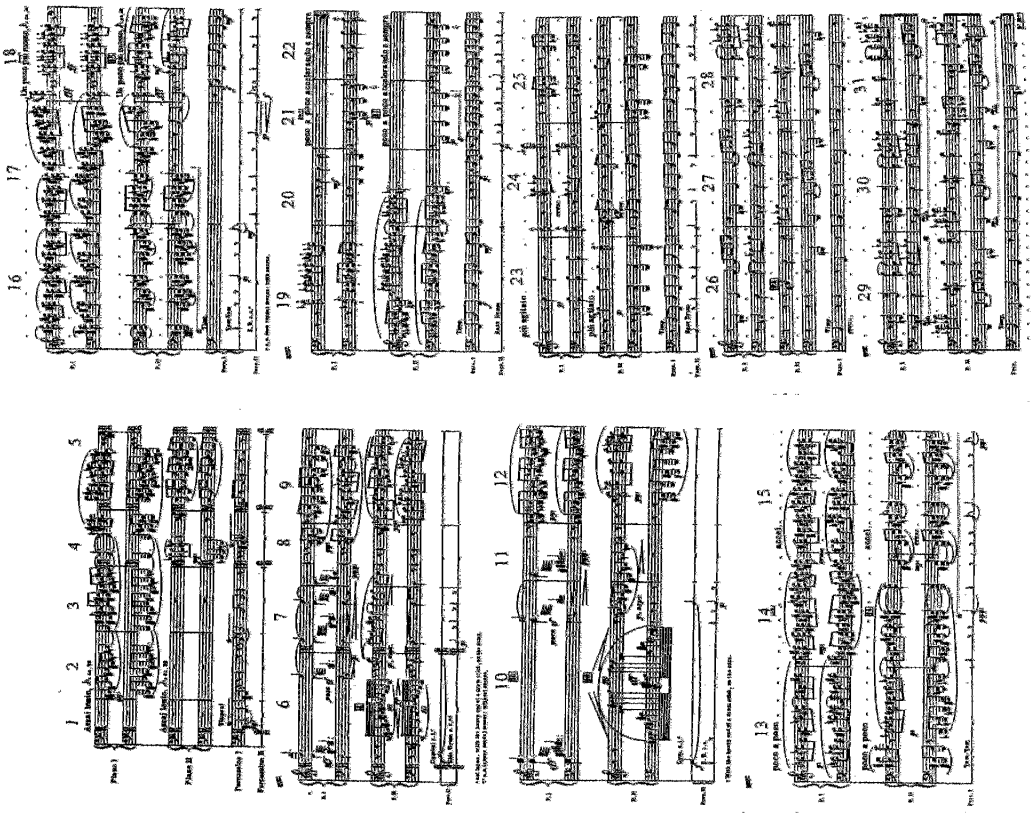


Ex. 2
Bartók, Sonata fo r'Two Pianos and Percussion, Mvt. I
Middleground (continued)



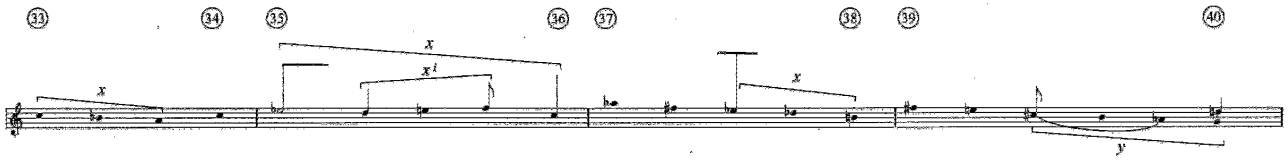
Ex. 2
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Middleground (conclusion)





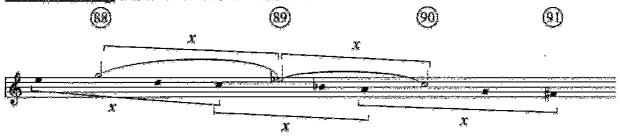
Ex. 3
Bartók: Sonata for Two Pianos and Percussion, Mvt. I
(pages 5-7, measures 1-31)

Ex. 4, A
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
First Group: First Section: Motives X, Xi, Y



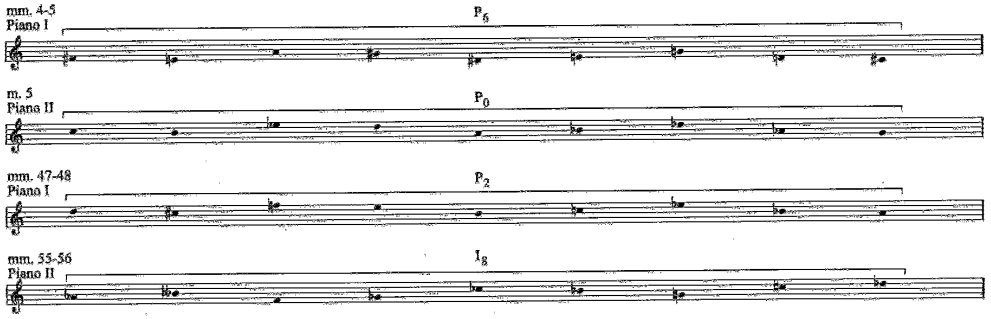
Ex. 4, B
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Second Group Second Section: Motives X, Xi

Ex. 4, C
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Second Group First Section: mm.88-91

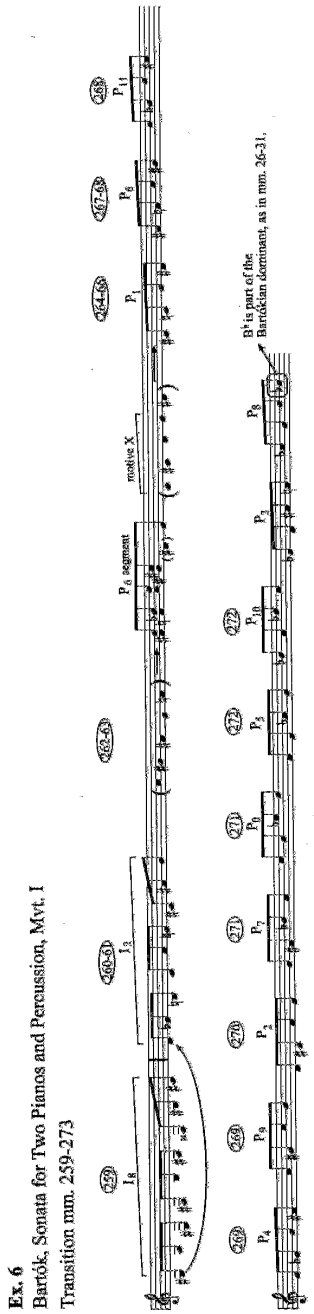


Ex. 5

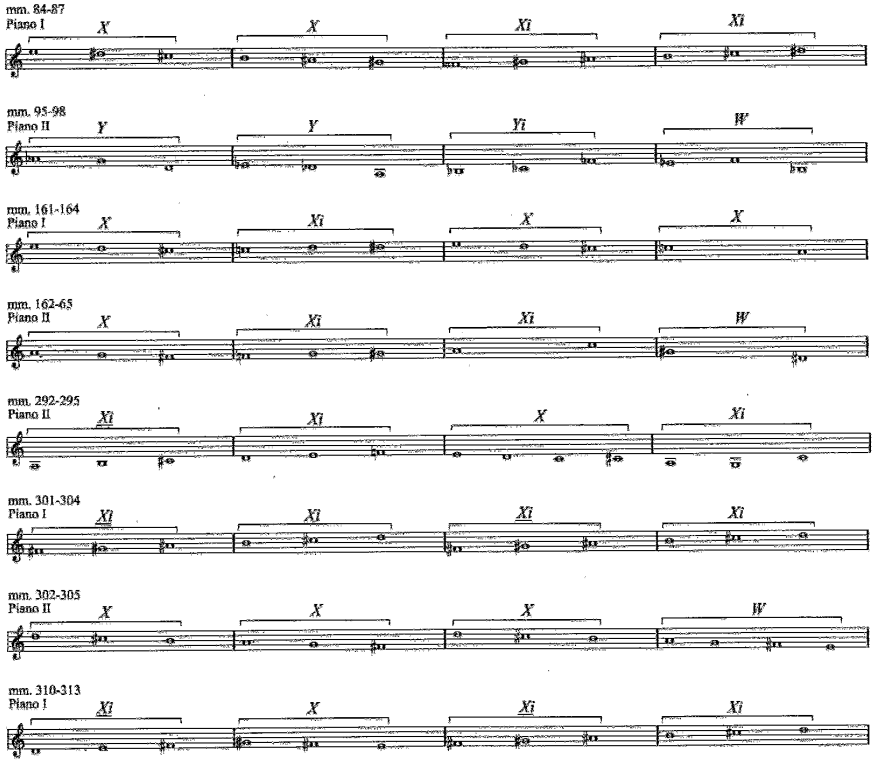
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Allusions to Coiled Motive in the Exposition



Ex. 6
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Transition mm. 259-273



Ex. 7:
Bartók, Sonata for Two Pianos and Percussion, Mvt. I
Second Group's Sections in the First Movement (Each Line Presents Four Measures)



Explanation of Motives:

Z - descending major second

Zi - ascending major second

X - descending minor third

Xi - ascending minor third

X - descending major third

Xi - ascending major third

W - descending perfect fourth

Wi - ascending perfect fourth

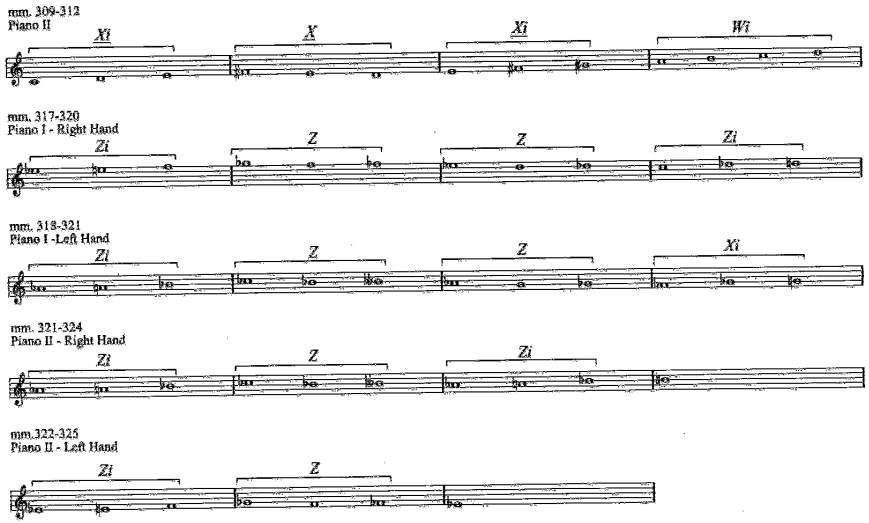
Y - descending tritone

Yi - ascending tritone

Ex. 7

Bartók, Sonata for Two Pianos and Percussion, Mvt. I

Second Group's Sections in the First Movement (continued)



Explanation of Motives:

Z - descending major second

Zi - ascending major second

X - descending minor third

Xi - ascending minor third

X - descending major third

Xi - ascending major third

W - descending perfect fourth

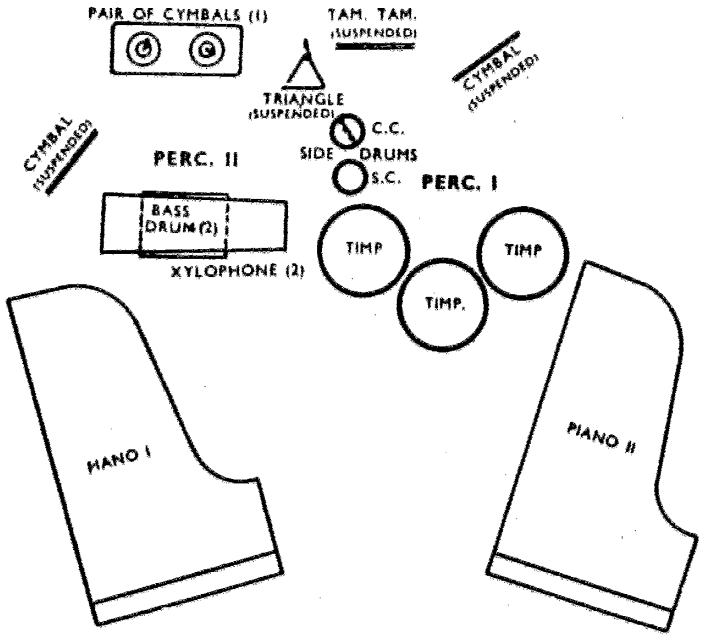
Wi - ascending perfect fourth

Y - descending tritone

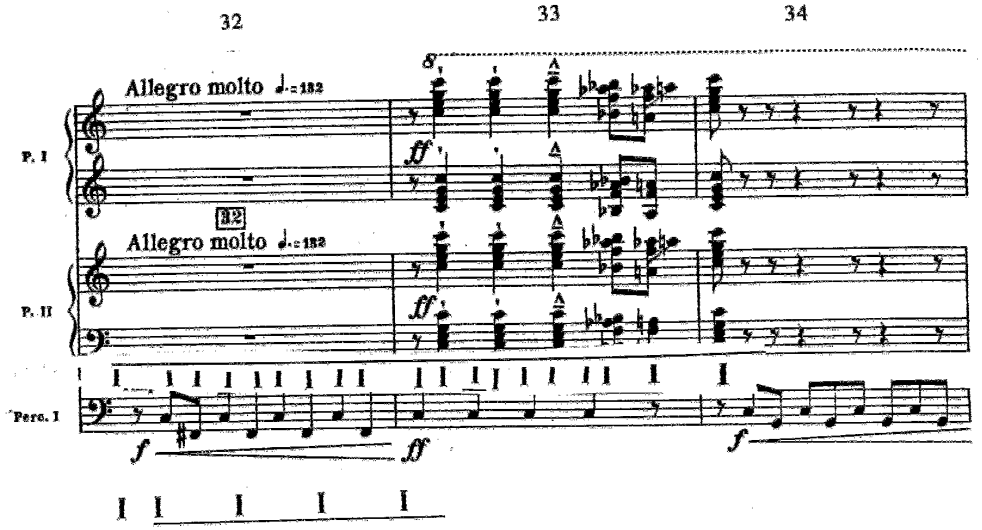
Yi - ascending tritone

APPENDIX C: MUSICAL EXAMPLES FOR CHAPTER 4

Ex. 1
Bartók's Plan Indicating the Groupings of the Various Instruments



Ex. 2.
Solution for Performers, First Group First Section,
mm. 32-34



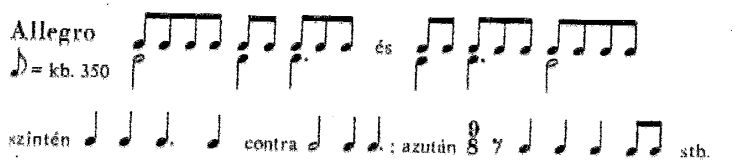
Ex. 3
Bartók's Letter to Paul Sacher of 11 of November, 1937.

854. PAUL SACHERNAK — BASELBE
[10]
[Fordítás német eredetiből]

1937. nov. 11.

[...]

Nemrégen alkalmam volt egy ütős-együttest alaposan „..egtekinteni: nagyon jól lehet majd a művet eredeti intencióm szerint csupán 2 ütőssel játszani. De ritmikai nehézségek bizony lesznek (az 1. tételben):



A második nehézség a hangerősség megfelelő adagolásában lesz; számtalan fokozatra (árnyalatra) van szükség egy f vagy mf vagy p (és pp) hangzáson belül.

[...]

REFERENCE LIST

The Autograph Sources:

These are the systematic codes for the manuscript of the *Sonata* possessed by Mr. Péter Bartók:

PB59FSS1

PB75FSS1

PB75FSID1-ID3

key-codes for the upcoming letters and numbers:

PB= Péter Bartók, the director of the Estate Béla Bartók located in Homosassa, FL
75 = *Sonata for Two Pianos and Percussion*
59 = Mikrokosmos
First one or two lettersafter the number; T = transcription P = piano FS = full score D = drum
Letters following them; S = sketch ID = intermediary draft FC = final copy
Last number is the symbol for the latest version (e.g. '1' stands for the first version, first source)

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