



National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Exemple - Notice d'envoi

Exemple - Notice d'envoi

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

UNIVERSITY OF OTTAWA

Aspects of Lev Abramovich Mazel's
Theory of Integrated Analysis

by

Vladimir Radonjić

DEPARTMENT OF MUSIC

Presented to the Faculty of Arts
in partial fulfilment of the requirements
for the degree of Master of Music



Vladimir Radonjić, Ottawa, Canada, 1992



National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file - Votre référence

Our file - Notre référence

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-85828-1

Canada



UNIVERSITÉ D'OTTAWA
UNIVERSITY OF OTTAWA

ACKNOWLEDGEMENTS

I would like to gratefully acknowledge the time and effort contributed by Professors Boulay and Merkley of the Department of Music, and Professor Donskov of the Department of Modern Languages, in helping me complete this thesis. Without Professor Boulay's experienced guidance in locating, acquiring, and organising my sources, my research would have come to naught. Its outcome is largely the result of Professor Merkley's ingenious advice on how to present my material. Both Professors Boulay and Merkley have been instrumental in helping me complete this thesis, and I would like to here express my sincere thanks to both. Professor Donskov's generous offer to proofread my Russian translations proved indispensable, and is also gratefully acknowledged.

ABSTRACT

In this thesis several aspects of the theory of integrated analysis of musical works of Lev Abramovich Mazel' (1907–) are presented and explicated. These aspects are dimensions of thematic structures, dynamics, timbre and texture, and melody. Mazel' segments his theory into different elements of music, presenting conceptions of each element in light of his integrated analytical method. The examination of these aspects affords a good cross-section of the entire theory of integrated analysis.

The aspect of dimensions of thematic structures, in some ways the most original, reflects the structural and analytical tendencies of the theory of integrated analysis. Mazel's discussion of dynamics, timbre, and texture is mainly concerned with perception and reflects those tendencies in the theory which examine the very nature of music as one of the arts. The treatment of melody combines both speculative and analytical tendencies. For Mazel' melody represents one of the most important elements of music.

Integrated analysis represents an important achievement of Soviet theoretical thought in music. This thesis puts Mazel's theory of integrated analysis into historical perspective, indicating its origins, its context in Soviet music theory, and its place in Mazel's overall output.

Mazel's formulation of the theory of integrated analysis represents only one of his contributions to Soviet musicological-theoretical thought. He is perhaps the most important living Soviet music theorist, and this makes a study of his works in the West all the more relevant.

TABLE OF CONTENTS

INTRODUCTION	1
CHAPTER ONE: LEV ABRAMOVICH MAZEL' AND INTEGRATED ANALYSIS IN THE CON- TEXT OF SOVIET MUSIC THEORY	4
SECTION ONE: Lev Abramovich Mazel's origins in early 20th-Century Russian Theoretical Thought in Music	4
SECTION TWO: Lev Abramovich Mazel' (1907–)	8
SECTION THREE: Integrated Analysis	15
CHAPTER TWO: "DIMENSIONS OF THE- MATIC STRUCTURES"	19
"SECTION ONE: General understandings of dimensions of thematic structures"	20
"SECTION TWO: Periodicity"	23
"SECTION THREE: Grouped periodicities"	27
"SECTION FOUR: Summation. Progressive summation"	36
"SECTION FIVE: Splitting"	44
"SECTION SIX: Splitting with closure"	49
"SECTION SEVEN: Several other structures"	64
"SECTION EIGHT: Some general remarks and additions. Historical formation and development of basic dimensions of thematic structure"	73
CHAPTER THREE: "ON THE EXPRESSIVE AND FORM-DEFINING ROLES OF DYNAMICS, TIMBRE, AND MUSICAL TEXTURE"	85
"SECTION ONE: Preliminary remarks"	86
"SECTION TWO: Dynamics"	89
"SECTION THREE: Timbre"	95
"SECTION FOUR: Texture"	101

CHAPTER FOUR: "MELODIKA"	107
"SECTION ONE: The role of melodic principles in music. The meaning of terms 'melody,' 'melos,' and 'melodika' "	108
"SECTION TWO: The nature of melody. The main aspects of melody"	114
"SECTION THREE: Modal and modal-harmonic aspects of melody"	119
"SECTION FOUR: Basic premises on the expressiveness of a melodic line"	134
"SECTION FIVE: Some simpler types of intonation"	143
"SECTION SIX: The melodic wave. Melodic development based on melodic waves. Melodic peaks and their functions. The culmination and its different types"	145
"SECTION SEVEN: Types of melodic motion"	154
"SECTION EIGHT: Analyses of separate melodies"	167
CONCLUSION	173
APPENDIX I	175
APPENDIX II	178
BIBLIOGRAPHY	180

LIST OF EXAMPLES

Example 1:	J.S. Bach, <i>Violin Concerto in A Minor (BWV 1041), I</i>	21
Example 2:	R. Schumann, <i>Carnaval (Op. 9)</i>	24
Example 3:	Russian Folk Song from a collection by N. Rimsky-Korsakov	25
Example 4:	G. Mahler, <i>Symphony No. 1 in D Major (1884), III</i>	28
Example 5:	Russian Folk Song from a collection by N. Rimsky-Korsakov	29-30
Example 6:	J.S. Bach, <i>Fugue from Fantasy and Fugue in G Minor (BWV 542)</i>	31
Example 7:	Russian Folk Song from a collection by A.K. Liadov	32
Example 8:	P.I. Tchaikovsky, <i>Symphony No. 5 in E Minor (Op. 64), IV</i>	34
Example 9:	P.I. Tchaikovsky, <i>Meditation (Op. 72)</i>	34
Example 10:	W.A. Mozart, <i>Magic Flute (K. 620)</i>	35
Example 11:	F. Schubert, <i>Symphony No. 9 in C Major ("The Great"), IV</i>	37
Example 12:	F. Chopin, <i>"Les Moissonneurs" (Second Livre de pièces de Clavecin, VI^e Ordre)</i>	39
Example 13:	F. Chopin, <i>Prelude No. 3 in G Major (Op. 28)</i>	41
Example 14:	D.F.R. Kuhlau, <i>Sonatina (Op. 55, No. 1)</i>	42
Example 15:	G. Bizet, <i>Carmen (1875)</i>	45
Example 16:	F. Chopin, <i>Mazurka (Op. 6, No. 3)</i>	45
Example 17:	J. Strauss (Jr.), <i>Waltz</i>	46
Example 18:	M.A. Balakirev, <i>Polka</i>	47
Example 19:	L. van Beethoven, <i>Sonata for Piano No. 4 in Eb Major (Op. 7), III</i>	51
Example 20:	L. van Beethoven, <i>Sonata for Piano No. 11 in Bb Major (Op. 22), IV</i>	52-53, 168
Example 21:	N.Y. Miaskovsky, <i>"Soviet Wings"</i>	57
Example 22:	L. van Beethoven, <i>Symphony No. 5 in C Minor (Op. 67), II</i>	57-58
Example 23:	D. Shostakovich, <i>Fugue in F# Minor from 24 Preludes and Fugues (Op. 87)</i>	58
Example 24:	F.J. Haydn, <i>Sonata for Piano in C Major (Hob. XVI: 48)</i>	59-60
Example 25:	A. Scriabin, <i>Prelude No. 8 in F# Minor (Op. 11)</i>	61-62, 77
Example 26:	P.I. Tchaikovsky, <i>Symphony No. 5 (Op. 64), II</i>	65

Example 27:	W.A. Mozart, <i>Rondo in A Minor</i> (K. 511)	66
Example 28:	C.B. Kabalevsky, <i>Sonatina</i> (Op. 13, No. 1)	67
Example 29a:	L. van Beethoven, <i>Sonata for Piano No. 25 in G Major</i> (Op. 79), I, Exposition	68
Example 29b:	L. van Beethoven, <i>Sonata for Piano No. 25 in G Major</i> (Op. 79), I, Coda	69
Example 30:	Hungarian folk song from <i>Collection of Folk Songs</i> by Bartok and Kodaly	70
Example 31:	J.S. Bach, <i>Fugue in G Major, WTC II, 15</i> (BWV 884)	71
Example 32:	F. Chopin, <i>Mazurka</i> (Op. 59, No. 3)	72
Example 33:	F. Chopin, <i>Prelude No. 3 in G Major</i> (Op. 28)	73
Example 34:	W.A. Mozart, <i>Symphony No. 40 in G Minor</i> (K. 550), I	79, 140
Example 35:	D. Scarlatti, <i>Sonata No. 29 in D Major</i>	81, 165
Example 36:	F.J. Haydn, <i>Symphony No. 102 in Bb Major</i> (Hob. I: 102), III	82
Example 37:	D. Shostakovich, <i>Trio</i> (Op. 67), I	93
Example 38:	M. Ravel, <i>Rapsodie espagnole</i> (1907)	99
Example 39:	D. Shostakovich, <i>Symphony No. 9</i> (Op. 70), I	100
Example 40:	Ukrainian Song from the Collection <i>Ukrainian Folk Song</i> (1936)	121
Example 41:	R. Schumann, <i>Dichterliebe No. 7</i> (Op. 48), "Ich grolle nicht"	123
Example 42:	P.I. Tchaikovsky, "Alone again"	125
Example 43:	J.S. Bach, <i>Fugue in A Minor, WTC II, 20</i> (BWV 890)	126
Example 44:	L. van Beethoven, <i>Symphony No. 1 in C Major</i> (Op. 21), I	127
Example 45:	L. van Beethoven, <i>Thirty-two Variations in C Minor</i> (WoO 80)	128
Example 46:	L. van Beethoven, <i>Leonore Overture No. 3</i> (Op. 72)	129
Example 47:	R. Wagner, <i>Tristan und Isolde</i> (1865)	131
Example 48:	L. van Beethoven, <i>Symphony No. 5 in C Minor</i> (Op. 67), II	132
Example 49:	R. Wagner, <i>The Ring of the Nibelung</i> , motive of the "rainbow"	133
Example 50:	F. Chopin, <i>Nocturne</i> (Op. 9, No. 2)	138
Example 51:	L. van Beethoven, <i>Thirty-two Variations in C Minor</i> (WoO 80)	139
Example 52:	Model of a 'hidden' voice generating a 'connective intonation'	141
Example 53:	L. van Beethoven, <i>Sonata for Piano No. 19 in G Major</i> (Op. 49, No. 1), I	141
Example 54:	F. Chopin, <i>Mazurka</i> (Op. 67, No. 4): reduction of 'hidden' voice	142

Example 55:	Russain Song from <i>Collection of Folk Songs</i> by Lopation and Pokunin	144
Example 56:	D. Shostakovich, <i>Symphony No. 10 in E Minor (Op. 93), I</i>	145
Example 57a:	P.I. Tchaikovsky, <i>Symphony No. 6 in B Minor (Op. 74), I</i>	146
Example 57b:	F. Chopin, <i>Etude (Op. 10, No. 2)</i>	146
Example 58:	J.S. Bach, <i>Two-part Invention No. 14 in B$\flat$ Major (BWV 785)</i>	147
Example 59:	P.I. Tchaikovsky, <i>Francesca da Rimini (Op. 32)</i>	148
Example 60:	E. Waldteufel, <i>Waltz ("The Song of Birds")</i>	150
Example 61:	P.I. Tchaikovsky, <i>Symphony No. 5 in E Minor (Op. 64), II</i>	151
Example 62:	F. Chopin, <i>Prelude No. 18 in F Minor (Op. 28)</i>	152
Example 63:	L. van Beethoven, <i>Sonata for Piano No. 16 in G Major (Op. 31, No. 1), II</i>	153
Example 64:	R. Schumann, <i>Abegg Variations (Op. 1)</i>	156
Example 65:	Russian Song, "As on the Sea," from collection by M.A. Balakirev	157
Example 66:	J.S. Bach, <i>Fugue in G Minor, WTC I, 16 (BWV 883)</i>	158
Example 67:	Ukrainian Folk Song (source indefinite)	159
Example 68:	S. Prokofiev, <i>Romeo and Juliet (Op. 64)</i>	160
Example 69:	C. Debussy, <i>Prélude, "La fille aux cheveux de lin" (1910)</i>	162
Example 70:	W.A. Mozart, <i>Symphony No. 40 in G Minor (K. 550)</i>	163
Example 71:	G. Bizet, <i>Carmen (1875)</i>	164
Example 72:	F. Chopin, <i>Prelude No. 18 in F Minor (Op. 28)</i>	175-176
Example 73:	A. Scriabin, <i>Prelude in G$\sharp$ Minor (Op. 16, No. 2)</i>	178-179

INTRODUCTION

In this thesis aspects of the theory of analysis of perhaps the most influential living Russian theorist, Lev Abramovich Mazel' (1907-) are presented. Mazel's theory of analysis is referred to by him and his Soviet contemporaries as integrated analysis (*tselostnyi analiz*). It is important to realize that this type of analysis is not original to Mazel', but is rather a sort of trend in Soviet music theory begun by earlier Soviet theorists like Boleslav Yavorsky and Boris Asafiev. This analytical trend concerns mainly the treatment of music in its entirety, in its whole complex of elements. Mazel' has been at the forefront of this trend throughout his career, being one of the principal exponents of integrated analysis in the Soviet Union. He is among the most active and prolific Soviet writers on that topic.

Mazel's book *Analysis of Musical Works* (1967), on which he collaborated with Valentin A. Tsukkerman (the other important exponent of integrated analysis in the Soviet Union), is arguably the most complete statement of a theory of integrated analysis. That book examines all the theoretical conceptions that underlie an integrated approach to the analysis of musical works. The chapters of that book which examine separately the aspects of dimensions of thematic structures, dynamics, timbre and texture, and melody, are presented in this thesis in their entirety. The objective of this presentation is to examine the kinds of theoretical conceptions that are the basis for integrated analysis of music as practised by Mazel', his students, and other music theorists in the Soviet Union.

Some notions, however, that Mazel' posits and at times assumes as givens are from a Western point of view problematic. For instance, his treatment of folk songs as

illustrative of the origins of some musical phenomena—most notably the dimensional-thematic structures of grouped periodicities that he calls couplet forms (Chapter 2, Section 3), tonic and dominant elaborations which he refers to as “high” and “low supports” (Chapter 4, Section 5), and the length and frequency of melodic waves (Chapter 4, Section 6)—is based on the assumption that the elementary forms of these phenomena originate from folk music. This assumption suggests a highly disputable link between folk music and Western art music. The ease with which Mazel’ makes this link is reflective of his orientation as a Marxist music theorist. The link from a Western point of view is at best casual and highly problematic. It requires, for instance, the questionable consideration of folk music repertoires as static and fixed like the repertoires of Western art music of the modern eras, thus allowing for comparisons and claims of origin. Such a static view of folk music repertoires ignores their essentially dynamic and constantly changing nature, obviating the crucial questions of orality and transmission. For Marxist theorists and musicologists, however, this link between folk music and art music is politically correct. Moreover, in the context of Russian art music the validity of this link is perhaps greater than in other Western art musics.

A further note that might add to the clarity of the presentation of Mazel’s ideas is in a way self-evident, namely that Mazel’ is a Marxist music theorist whose conceptions of music are thoroughly grounded in Marxist thought. The aspects of his integrated theory of analysis where Marxist influence is clearest is in his conceptions of melody and ideas about realistic music. Marxist demands for realism in art clearly emerge in this notion of realistic music, the basic premise of which is that music should in some way express profound feelings, lofty ideals, and be able to captivate a mass audience (Chapter 4, Section 1). Mazel’ views melody as the one element of music most capable of performing this function.

Another very Marxist idea is apparent in what Mazel’ views as the ultimate objective of integrated analysis—namely, the uncovering of the connection between the structure of a musical work and its content (Chapter 1, Section 3). The notion of

content of a musical work originates from Marxist aesthetics and refers to the social message of the work; it is closely connected with the work's expressive, stylistic, and historical aspects. Perhaps the simplest way of describing the Marxist notion of content of a work of art—and also the most simplistic—is as the social purpose of a work. For instance, the social purpose of a courtly dance such as a Bourrée or a Saraband is to entertain the upper classes, or the social purpose of a choral is to serve a social function in communal worship. These descriptions of the complex idea embodied by the content of a musical work are at best crude and inadequate. A critical treatment of this Marxist notion would require volumes: I mention it here merely as a note to my presentation of Mazel's theory of integrated analysis; the reader should keep in mind this Marxist notion of content whose definition Mazel' seeks in each musical work through his integrated analytical method.

CHAPTER ONE: LEV ABRAMOVICH MAZEL' AND INTEGRATED ANALYSIS IN THE CONTEXT OF SOVIET MUSIC THEORY

SECTION ONE: Lev Abramovich Mazel's origins in early 20th-Century Russian Theoretical Thought in Music ¹

In the beginning of the 20th-Century in Russia there was a remarkable level of activity in the field of music theory. A number of highly original theories and systems for understanding music were being developed by people like Sergey Tancev (1859–1915), Georgy Catoire (1861–1926), Georgy Conus (1862–1933), Boleslav Yavorsky (1877–1924), Boris Asafiev (1884–1949), and Nikolai Garbuzov (1880–1955). The influence of these Russians on later generations of Soviet theorists, and on Lev Abramovich Mazel' in particular, varies in importance from theorist to theorist. The body of theoretical literature, however, that these theorists produced became a reference point for the younger generations of Soviet theorists, who either chose to build upon or to take apart the theories of their predecessors. Mazel's approach was to synthesize the newly created theories into a workable whole. In many respects Mazel's integrated analysis is precisely that, a synthesis of the theoretical ideas of the early 20th-Century Russian theorists—although its origins extend further to include some ideas of important German and English music theorists of this and the previous centuries. ²

¹Part of the title of this Section is the same as that of Gordon D. McQuere's book *Russian Theoretical Thought in Music*. That book represents the most authoritative English volume on the subject of Russian music theory, and has been an invaluable tool in my research.

²According to his acknowledgements in *Analysis of Musical Works* (1967), Mazel's theories were

Generally speaking, the works of the early 20th-Century Russian theorists were driven by a desire to reduce the study of music to an exact science. This tendency had its origins in the theories of Riemann, whose influence on 20th-Century Russian music theory was profound. This influence is most evident in the works of G. Catoire, who formulated a system of hierarchical metrical organization that reflects Riemann's theories of form, above all in its conceptions of the motive, phrase, and various structural units. Mazel' was a student of G. Catoire. The influences of Riemann on Mazel's understanding of form could be traced to Catoire, especially when one considers that Mazel' was instrumental in the posthumous publication of Catoire's *Musical Form* (1934).

The result of the scientific tendencies in early 20th-Century Russian music theory is clearest in works like S. Taneev's *Movable Counterpoint in the Strict Style* (1909), in which Taneev devised a fully functional system of mathematical equations for the analysis and writing of invertible counterpoint. The mention of Taneev is necessary here not because of his influence on Mazel' (theory of counterpoint does not figure prominently in Mazel's integrated analysis), but because Taneev represents one of the most important Russian thinkers in the field of music theory, and any discussion of 20th-Century Russian music theory must include at least a brief mention of his contributions.

A less successful theory, also reflecting the current scientific tendencies, was constructed by G. Conus in his "The metrotechtonic solution to the problems of musical form (A summary of musical scientific research) (1924)," published in article form in *Muzykal'naia kultura*.³ That theory sought to find mathematical proportions in music by means of measure counting. Although it suffered from inconsistencies,

stimulated by Riemann, Kurth, A.B. Marx, Hugo Leichtentritt and Ebenezer Prout, among others.

³G.D. McQuere, *Russian Theoretical Thought in Music* (Ann Arbor, Mich.: UMI Research Press, 1983), 367 n.165. [Succeeding references to works by this author will invariably refer to this book.]

metrotechtonicism suggested ways of approaching music that could be fruitful if applied in a dynamic way. Mazel' pointed this out in his 1929 article "On metrotechtonicism," when he wrote: "Metrotechtonicism, undoubtedly, enriches our perception and calls attention to...architectural correlations in musical works..." ⁴ The influences of metrotechtonicism are evident in Mazel's understanding of dimensions of thematic structures, above all in the aspect of mathematical proportion they exhibit. Chapter Two of this thesis presents Mazel's understanding of dimensions of thematic structures.

The scientific tendencies in Russian music theory are also reflected in the works of Boleslav Yavorsky. Yavorsky based his approach to music on the conception of "auditory gravity," which stood at the centre of his theory of modal rhythm—presented in *Structure of Musical Speech* (1908). This theory was characterized by a broader approach than the theories of Taneev, Catoire, or Conus, for in it Yavorsky attempted to formulate "a system applying to all music." ⁵ He was the first Russian theorist to do so, and his influence on younger Soviet theorists was great. Many of the conceptions Yavorsky formulated have become a part of common knowledge in Soviet music theory. This is evident in Mazel's exposition of his understanding of melody (Chapter Four of this thesis) in which he freely uses Yavorsky's terms 'moment,' 'intonation,' and 'connective intonation' to explain melodic phenomena. The link with Yavorsky's theories is even more evident in Mazel's understanding of the 'gravitational intensity' of different degrees in a mode, explained in Section Three of Chapter Four.

Boris Asafiev was profoundly influenced by Yavorsky's theories. In some ways a more important theorist than Yavorsky, Asafiev developed theories around his own formulation of Yavorsky's concept of 'intonation.' In fact the term 'intonation' is so much associated with Asafiev that its usage in Soviet music theory often signifies Asafiev's and not Yavorsky's conceptualization of it. Another influence on Asafiev

⁴L.A. Mazel', "O metrotektonizme" [On metrotechtonicism], *Proletarskii Muzykant*, 1929, 7-8: 54.

⁵McQuere, 159 n.1.

is the German theorist Ernst Kurth. The 1931 Russian translation by Z. Evald of Kurth's *Grundlagen des linearen Kontrapunkts* (1917) was edited and introduced by Boris Asafiev.⁶ A year following the translation, Mazel' published an article in the *Muzykal'ni Almanakh*, entitled "On the musical theoretical conceptions of Kurth." The influence of the German theorist is evident in Asafiev's *Musical Form as a Process* (1930), where the latter's abstract system of musical operations that revolve around the idea of 'intonation,' is presented. That work is considered by some as the most significant achievement of Soviet music theory. Certainly its influence in the Soviet Union is great. Mazel' himself makes frequent reference to this work, sometimes referring to its author by his pseudonym, Igor Glebov. Asafiev's influence on Mazel' is most evident in the latter's conceptions of melody (see Section Two of Chapter Four).

As original as Asafiev's theories, and certainly reflecting the current scientific trends, were the theories of Nikolai Garbuzov. Garbuzov sought to explain musical phenomena, harmony in particular, through the study of acoustics. In his *The theory of multi-based modes and chords* (1932) he proposed an acoustical theory (based on the overtone series) for understanding the harmonic language of Scriabin, Stravinsky, and Prokofiev. Mazel' tried to apply Garbuzov's theory in his 1930 article "The A major Prelude of Chopin in light of the theory of multi-based modes and chords," published in *Muzykal'noe obrazovanie*.

The theorists mentioned thus far were all, as was already stated, driven by a desire to reduce the study of music to an exact science. This resulted in certain cases, Conus's metrotechtonicism being a good example, in a narrowness of outlook that inevitably led to an intellectual dead end. The younger generation of Soviet theorists were acutely aware of the intellectual constrictions that the theories of their predecessors placed on their understanding of music. This was all the more made evident by the concrete demands of musical analysis. The solution of younger Soviet

⁶McQuere, 251 n.32.

theorists such as Mazel' was to take only those aspects of the new theories which could serve the concrete purpose of musical analysis. The result in Mazel's case was the invention of an integrated theory of analysis inspired by the ideas of earlier 20th-Century Russian theorists.

SECTION TWO: Lev Abramovich Mazel' (1907–)

Born on May 26th (1907) in Königsberg, East Prussia (now Kaliningrad), Lev Abramovich Mazel' went on to receive his higher education in Moscow, where at the age of twenty-three he graduated from the mathematics division of the department of physics and mathematics of Moscow State University. He concurrently completed the program in composition and theory of music at the Moscow State Conservatory. Mazel' chose to continue his studies in music, graduating in 1932 from a fellowship course under Mikhail-Ivanov Boretsky. The preceding year he already began to teach at the Conservatory, in the capacity of a lecturer. Along with Victor A. Tsukkerman, a young fellow theorist-musicologist, Mazel' gave a course "Theoretical Practicum."⁷ The association thus begun would be crowned three and a half decades later by a joint statement of a theory of integrated analysis in the 1967 book *Analysis of Musical Works*.

By the year 1932 Mazel' had managed to publish three historical articles dealing with various theoretical systems.⁸ Two of the articles discussed theories of Conus ("On metrotechtonicism," 1929) and Garbuzov ("The A major Prelude of Chopin in light of the theory of multi-based modes and chords," 1930), both of whom were mentioned in the previous section. In the same year Mazel' began teaching single-handedly a course called "Analysis of Musical Works," which in later years would prove a testing ground for his theories of integrated analysis. Daniel V. Zhitomirsky, Mazel's student then and now an established Soviet musicologist, remembers Mazel' as a young theorist.

⁷D. Zhitomirsky, "Nauka i tayna muziki" [Science and the mystery of music], *Sovetskaya muzyka* 5(May 1967):34.

⁸See first three entries of the bibliography (1929, 1930 a and b).

In L. Mazel's lectures the delivery was characterized by strict logic and finesse, often combining liveliness and ease that were sometimes lacking in his literary texts.⁹

In 1932 along with his teaching activities, Mazel' published another article (mentioned in the previous section) "On the musical theoretical conceptions of Kurth." This and his earlier historical articles were compiled into a volume co-authored with Yosif Y. Ryzhkin *Essays on the history of theoretical musicology*, published in 1934. The second volume of this book came out in 1939 and included other historical articles written in the intervening period. Writing in 1967, Tsukkerman points out that *Essays on the history of theoretical musicology* is still a standard text for teaching musical theoretical systems in Soviet Conservatoires.¹⁰

The year 1937 was a turning point in Mazel's career as a young theorist. His status at the Moscow State Conservatory had changed from lecturer to professor,¹¹ and his first major work, *The F Minor Fantasy of Chopin. An Experiment in Analysis*, had been published. This book is invariably mentioned in any discussion of Mazel' because it represents an important achievement in Soviet music theory.¹² It was the first large scale published analysis of its kind in the history of Russian music theory. Its other merits include a synthesis of existing theoretical systems that were seemingly irreconcilable in their approaches and the first mention and analytical application of Mazel's theory of expressive possibilities. Zhitomirsky points out that such an analytical application, in its time, had not met with little criticism.

...in the years in which the "Fantasia" appeared, Mazel's statements on his methodology were very controversial... They disputed... the inveterate

⁹В лекциях Л. Мазеля строгая логичность и отточенность изложения обычно соединяются с живостью, непринужденностью, которых порой не хватает его литературным текстам. [D. Zhitomirsky, "Nauka i tayna muziki," 36]

¹⁰V.A. Tsukkerman, "Verskhina-istochnik" [High source], *Ot Lulli do nashikh dnei* [From Lully to our days], ed. V. Konen (Moscow: Muzyka, 1967), 289.

¹¹ibid., 280.

¹²A good summary of *The F Minor Fantasy* is provided in a section on Mazel' of the last chapter of McQuere's *Russian Theoretical Thought in Music*.

scepticism of conservative theorists who were convinced that discussions of expressiveness were no more than idle chatter *on the subject of music*, and did not deserve the attention of existing science.¹³

This controversy did not prevent Mazel' from receiving the highest honour for *The F Minor Fantasy* in the 1937 Congress of Young Scientist, organized by the Soviet Academy of Sciences. He again received acclaim, along with Yuri N. Tiulin for his *A Study of Harmony* (1937), in the 1940 All-Soviet Competition of Musicological Works, in which Boris Asafiev reviewed Mazel's book.¹⁴

The F Minor Fantasy of Chopin is significant in Mazel's output because for the first time he proposed and applied his method of analysis. In his future works dealing with analysis, he would return to the analytical method proposed in *The F Minor Fantasy* and would further a certain aspect of it. But the basic analytical method proposed in that early work would remain unchanged. Only a few sentences from *The F Minor Fantasy* are needed to convince one of this.

The study of separate elements of a musical whole (harmony, melody, polyphony, meter, timbre, etc.) are, from the musicologist's viewpoint only a means for grasping the principles of musical style and of a musical work as a whole. . . Thus the analysis of a musical work includes the factor of the synthetic scope of the whole. Expressions such as "*analysis of form*," "*musical analysis*," etc., arose only to distinguish the study of a musical work from its composition—that is, from its musical creation—but not as the opposite of the analytical scientific method to the synthetic. In connection with this, musicologists sometimes use expressions that appear

¹³...в годы появления «Фантазии» методологические высказывания Л. Мазеля имели весьма острую полемическую направленность...Они спорили...против застарелого скептицизма теоретиков консервативного толка, убежденных, что разговоры о выразительности—не более чем болтовня по поводу музыки и не заслуживают внимания настоящей науки. [Zhitomirsky, "Nauka i tayna muziki," 35.]

¹⁴V.A. Tsukkerman, "Verskhina-istochnik," 280.

paradoxical (for example, "integrated analysis"). It is considered necessary to state that mechanically understood calculation of interactions between elements does not solve the problem of unity either—it does not uncover the whole.¹⁵

This passage from the Introduction to *The F Minor Fantasy* is almost like an introduction to any of Mazel's later texts on musical analysis. There is evident an emphasis on considering the whole in the analytical process—on the synthesis—the ultimate objective of which is to understand the principles of musical style. Thus, the analytical method proposed in *The F Minor Fantasy* is integrated analysis, the theory of which Mazel would spend a good part of his career developing. His analytical background for *The F Minor Fantasy* is the theories of Catoire (i.e. Riemann), Conus, Yavorsky and Kurth. In developing a theory of integrated analysis, Mazel sought to provide an analytical background (i.e. theory of analysis) of his own. In this background the influences of earlier theorists are obvious.

The next important date in Mazel's career is the year 1940. That year (to use Tsukkerman's words) Mazel "brilliantly defended" his doctoral dissertation at the Moscow State Conservatory.¹⁶ Written under Mikhail Ivanov-Boretsky, the dissertation dealt with *The basic principles of melodic structure in a homophonic theme*. Though never published, that work figures prominently in Mazel's theoretical output.

¹⁵Изучение отдельных элементов музыкального целого (гармонии, мелодики, полифонии, метрики, тембра и т.п.) представляет, с точки зрения музыковеда лишь средство для охвата закономерностей музыкального стиля и музыкального произведения в целом... Анализ музыкального произведения включает в себя, таким образом, момент синтетического охвата целого. Выражения «анализ форм», «музыкальный анализ» и т. п. возникли лишь как отличающие изучение музыкального произведения от самой композиции, т.е. музыкального творчества, но отнюдь не как противопоставление аналитического научного метода синтетическому. Музыковедам приходится в связи с этим иногда употреблять выражения, кажущиеся с первого взгляда парадоксальными (например, «целостный анализ»). Считаем также необходимым оговорить, что механически понимаемый учет взаимодействия элементов еще не решает проблемы единства, не раскрывает целостности. [L.A. Mazel, "Fantazija f-moll Chopena. Opyt analiza" [The F Minor Fantasy of Chopin. An experiment in analysis], *Issledovaniya o Chopene* [Chopin Studies] (Moscow: Sovetskii Kompositor, 1971), 7-8.]

¹⁶V.A. Tsukkerman, "Verskhina istochnik," 281.

Parts of it are used as the main source for the chapter on dimensions of thematic structures in *Analysis of Musical Works* (1967), provided in its entirety in Chapter Two of this thesis. Tsukkerman offers a brief summary of Mazel's doctoral dissertation in his 1967 article "High Source."

That work... is notable for the depth of its general scientific conclusions, uniting theoretical logic with historical stylistic soundness. In it are uncovered the basic structural principles on which are founded musical themes of past centuries. It can be boldly asserted that that work, by its rare structural, even mathematical systematization, and at the same time great broadness of scope of repertoire, has no equal in world musical theoretical literature dealing with the problems of musical structure.¹⁷

In 1952 Mazel' published a book *On Melody* that draws on his unpublished dissertation. That published work is Mazel's most complete statement of a theory of melody, treating the topic within a larger, integrated understanding of music. The chapter on melody in *Analysis of Musical Works* (1967) is in part a summary of *On Melody*, and is presented in its entirety in the last chapter of this thesis.

While writing and publishing books and articles on theory and history of theory, Mazel' was an active professor at the Moscow State Conservatory. He wrote his own textbooks for the courses he taught, using the courses in analysis as the testing ground for the development of his theory of integrated analysis. The 1959 *Analysis of Musical Works* is an example of a textbook, part of which presents a theory of integrated analysis; a large part of it, however, deals with form. The five introductory chapters present the methodology of analysis, the conceptions of melody, of rhythm

¹⁷Работа эта... замечательна по глубине научного обобщения, соединяющего теоретическую логику с историко-стилистической обоснованностью. В ней раскрыты основные структурные закономерности, на которых зиждутся темы в музыке последних столетий. Можно смело утверждать, что работа эта по необычайно стройной, почти математической систематике и в то же время по охвату широчайшего музыкального материала не имеет себе равных в мировой музыкально-теоретической литературе, посвященной проблемам музыкальных структур. [V.A Tsukkerman, "Verskhina istochnik," 281.]

and meter, of divisions in music, and of the theme; the period and principles of musical development are presented in chapter five. These are all elements of music with which the theory of integrated analysis deals. Because the other ten chapters of *Analysis of Musical Works* (1959) present the various musical forms, that book can not be regarded as a statement of a theory of integrated analysis. Its introductory chapters state the fundamental conceptions of the theory of integrated analysis, but it is essentially a book on form. An expanded version of that book on form is the 1960 *Structure of Musical Works*. Though the title is different, the contents of these books is identical, differing only in detail. Clearly, the courses these books were used for were intended mainly to teach form, though Mazel's presentation in the texts included aspects of his integrated analytical method.

In 1967 Mazel' published the book *Analysis of Musical Works*, written in collaboration with Victor A. Tsukkerman, who is another Soviet theorist actively researching the theory of integrated analysis. This book is the most complete statement on the theory of integrated analysis. The chapters written by Mazel' (excluding the introductory chapter) are presented in their entirety in this thesis. According to Valentina Konen, *Analysis of Musical Works* (1967) is today a standard textbook for students of musicology and composition in the Soviet Union.¹⁸ This fact attests to the widespread acceptance of integrated analysis in that country. The title of the book, though identical with the 1959 textbook *Analysis of Musical Works*, does not mean that the 1967 version is a second edition. The two books differ substantially. The rest of this thesis will mainly deal with certain chapters from *Analysis of Musical Works* (1967), presenting their conceptions as aspects of the theory of integrated analysis.

Besides the books mentioned so far in Mazel's output, several other works figure prominently in his career as a theorist. The 1971 *Chopin Studies* is a compilation of several earlier works—"The A Major Prelude of Chopin in light of the theory of multi-based modes and chords" (1930), *The F Minor Fantasy of Chopin* (1937), and

¹⁸V. Konen, "Tsukkerman, Viktor Abramovich," *The New Groves Dictionary of Music and Musicians*, ed. S. Sadie (London: Macmillan Publishers Limited, 1980), XIX: 235.

"Some compositional traits in Chopin's free forms" (1960)—as well as a new article "On Chopin's Melodics." Mazel' devoted many years to the study of Chopin's music, and many of his theories are in part based on the music of Chopin. For this reason *Chopin Studies*, as a collection, occupies an important place in his output.

Another significant work is *The problems of classical harmony* (1972). It represents Mazel's statement of a theory of harmony within the context of his theory of integrated analysis. The last work worthy of note is *Questions on the analysis of music; an attempt at bringing together theoretical musicology and aesthetics* (1979). In this book Mazel' developed separately his theory of expressive possibilities that represent the final stage of integrated analysis—i.e. the aesthetic consideration in analysis. Mazel's theory of expressive possibilities is considered by some as his most significant "contribution to musicology."¹⁹

Lev Abramovich Mazel's prodigious output, and his active involvement in the teaching of music, have won him an important place in Soviet music theory. He is very highly regarded in the Soviet theoretical circles, as this quote from D. Zhitomirsky's article "Science and the mystery of music" indicates.

In the world of the science of music, Lev Abramovich Mazel' is a bright star, in whom are combined highest culture, universal knowledge, and brilliant mastery of research and pedagogy. But the main quality and the one defining his great creative talent, is directed and constructive intellectual effort. From the very beginning of his research, lectures, and speeches, L. Mazel' was seeking, searching, and uncovering new paths.²⁰

Mazel' occupies an important place in Soviet music theory, and is perhaps the most

¹⁹V. Koneen, "Mazel', Lev Abramovich," *The Groves Dictionary of Music and Musicians*, ed. S. Sadie (London: Macmillan Publishers Limited, 1980), XI: 864.

²⁰В мире науки о музыке Лев Абрамович Мазель является звездой первой величины, одним из тех в этой области, кто сосредоточивает в себе наивысшую культуру, универсальные знания, блестящее мастерство исследователя и педагога. Но главное и определяющее его крупный творческий талант—постоянная созидательная работа мысли. Почти с самого начала деятельности Л. Мазеля его исследования, лекции, выступления всегда в зоне исканий, прокладывания новых путей. [D. Zhitomirsky, "Nauka i tajna muziki," 31.]

influential living music theorist in the U.S.S.R.. The fact that he is the author of standard textbooks on musical analysis and history of music theory used in Soviet Conservatoires is only a small indication of the extent of this influence.

SECTION THREE: Integrated Analysis

In the introductory chapter to the 1967 textbook *Analysis of Musical Works*, Mazel' offers a good description of integrated analysis. He always links this description to the objectives of the course for which the textbook is intended.

The course analysis of musical works presents the science of musical works in its connection. . . with the content of music; the course teaches the application of the givens of that science (supplemented with information from other disciplines) to the integrated analysis of musical works. . . [scientific] cognition proceeds from the direct, as yet undifferentiated perception of a phenomenon as a whole, to the study of its constituent elements, and then again to the integrated—synthetic— grasp of the phenomenon on a higher level. (p. 7) ²¹

Attention should be drawn to the stress on synthesis that must follow analysis in the process of integrating the whole. That aspect, according to Mazel', differentiates integrated analysis from other types of analyses. Also important is Mazel's conception of the content of music, the uncovering of which is the ultimate objective of integrated analysis. By content, he means the social message of a work, which is connected in a broad way to musical style.

The very conception of integrated analysis is very broad. . . Such analysis demands the consideration of a musical work not only as a whole, but

²¹Курс анализа музыкальных произведений излагает науку о строении музыкальных произведений в его...связях с содержанием музыки; он учит применять данные этой науки (дополняемые с сведениями из других дисциплин) к целостному анализу музыкальных произведений. . . [научно] познание идет от непосредственного, еще недифференцированного, целостного восприятия явления к изучению его составных элементов и затем снова к целостному—синтетическому—охвату явления на более высокой основе. [NOTE: all succeeding quotations from *Analysis of Musical Works* (1967) will be followed by a page number reference from that book.]

also in its connection with other phenomena—with other works of art (sometimes not only musical), with the composer's style or that of a school of composition, with a defined national musical culture, and finally, with the general social and historical conditions that produced the given style and that type of work. (p. 9–10) ²²

Mazel's preoccupation with social and historical conditions reflects a definite Marxist orientation in his thinking. His theory is in this sense part of a Marxist tradition of thinking about music.

The goals then of integrated analysis are very broad and have a very definite orientation toward historical considerations in the process of analysis. However the concrete demands of analysis require firstly the consideration of the technical aspects of music. The theory of integrated analysis, as presented in *Analysis of Musical Works*, consists mainly of analytical conceptions of such technical aspects of music. These are concretely referred to as elements of music, with each chapter of the book being devoted to a particular element.

Above all this course introduces *the main aspects of the method* of analysis of musical works. The method remains the same in its fundamentals in any type of analytical work... in as much as in this course it is necessary to teach all the main elements of music, it includes special sections devoted to different elements, the study of which is not often separated into an independent educational discipline. (p. 11) ²³

²²Самое понятие целостного анализа весьма широко... Такой анализ предполагает рассмотрение музыкального произведения не только как целого, но и в его существенных связях с другими явлениями—с другими художественными произведениями (иногда не только музыкальными), со стилем композитора или композиторской школы, с определенной национальной музыкальной культурой, наконец, с общими социально-историческими условиями, породившими данный стиль и такого рода произведения.

²³Прежде всего этот курс знакомит с главнейшими чертами метода анализа музыкальных произведений. Метод же остается единым в своей основе для любого типа аналитической работы... поскольку в этом курсе требуется учет всех важнейших элементов музыки, в нем содержатся специальные разделы, посвященные различным элементам, в частности тем, научение которых не выделено в самостоятельные учебные дисциплины.

This refers especially to the discussions of dynamics, timbre, and texture, presented in Chapter Three of this thesis. These elements of music are rarely discussed separately, and their independent treatment in *Analysis of Musical Works* (1967) reflects its authors's approach of considering each element of music on its own, thus fulfilling the demands of analysis in a systematic way. Other elements of music whose discussion in *Analysis of Musical Works* is presented in this thesis are dimensions of thematic structures and melody—respectively presented in Chapters Two and Four. Mazel' and Tsukkerman, in their attempt to be complete in presenting a theory of integrated analysis, also discuss separately the elements of meter and rhythm, of harmony, of divisions in music, and of the period. The presentation of these elements is, however, beyond the scope of this thesis.

As far as the body of knowledge communicated in this course is concerned, it... can be characterized as the science of the structure of musical works and as the connection between the structure and the content of music. With that are associated some points of view concerning the very nature of music as one of the arts, and the method of its analysis. Furthermore, also associated... are the study of some important elements of music, and of their expressive and form-defining roles. With the field of science of structure of musical works is also connected the study of musical syntax, syntactic structures, musical thematicism, and general principles of development and form-definition in music... It is natural that a course thus conceived is, on the one hand, based on the available information from the field of historical development of musical language and style, and on the other hand, is called upon in its turn to facilitate the concrete definition and further enrichment of that information. (p. 11-2) ²⁴

²⁴Что же касается того круга значений, который сообщается именно в данном курсе, то его... можно охарактеризовать как науку о строении музыкальных произведений и о связях строения с содержанием музыки. Сюда входят некоторые положения, относящиеся к самой природе музыки, как одного из видов искусства, и к методу ее анализа. Далее, сюда

Thus the presentation of the theory of integrated analysis in *Analysis of Musical Works* (1967) is based on discussions of different elements which comprise music. The conceptions of dimensions of thematic structures, dynamics, timbre, and texture, and melody, are presented in the three following Chapters of this thesis. In the presentation of these elements of music, the different aspects of the theory of integrated analysis emerge. On the one hand, the element of dimensions of thematic structures is fairly technical and reflects analytical tendencies of the theory—those tendencies of the science of structure of musical works. The discussion of dynamics, timbre, and texture is mainly concerned with perception and reflects the aspects of the theory which are concerned with the nature of music as one of the arts. The treatment of melody in the last chapter is more speculative, with some discussions of technical aspects of melody—bringing together, as it were, the general characteristics of the theory (i.e. structural versus speculative) that the presentations of Chapters Two and Three reveal. Throughout each chapter, the conceptions of each of the elements of music reflect a constant preoccupation with their historical and stylistic evolution. In this respect, the extent of the repertoire on which these conceptions are based is important, and, as will be seen, is not always equal. That is, some of the presented ideas are restricted to particular repertoires.

входит...учение о некоторых важнейших элементах музыки, об их выразительной и формообразующей роли. К области науки о строении музыкальных произведений относится также учение о музыкальном синтаксисе, о синтаксических структурах, о музыкальном тематизме, об общих принципах развития и формообразования в музыке...Естественно, что так понимаемый курс, с одной стороны, базируется на имеющихся сведениях в области исторического развития музыкального языка и стилей, с другой же стороны, призван, в свою очередь, способствовать конкретизации и дальнейшему обогащению этих сведений.

CHAPTER TWO: “DIMENSIONS OF THEMATIC STRUCTURES”²⁵

Dimensions of thematic structures is a branch of the larger subject of form. In *Analysis of Musical Works* (1967) Mazel' treats this larger subject through the discussion of smaller formal structural units. One such structural unit is the theme, the systematic dimensions of which are elaborated upon in a whole chapter of that book. The chapter on dimension of thematic structures is the only published document in which Mazel' discusses this topic per se. His unpublished doctoral dissertation, *The basic principles of melodic structure in a homophonic theme* (1940), treated this topic; it is the main source of the ideas presented in this chapter.²⁶ In all of his other writings Mazel' always discusses dimensions of thematic structures within the context of a larger topic. Such, for instance, is his treatment of the subject in chapter five of the first edition of *Analysis of Musical Works* (1959), where the main topics of discussion are the theme and the period. This chapter, including comments on dimensions of thematic structures, is reprinted in largely the same form in the 1979 edition of *Structure of Musical Works*. Apart from those two pedagogic texts—the unpublished doctoral dissertation, and the 1967 edition of *Analysis of Musical Works*—Mazel's writings do not contain any extensive discussions on dimensions of thematic structures.

²⁵ “Масштабно-тематические структуры”

²⁶ L.A. Mazel' and V.A. Tsukkerman, *Analiz muzikal'nikh proizvedeniy* [Analysis of Musical Works] (Moscow: Muzyka, 1967), 4.

"SECTION ONE: General understandings of dimensions of thematic structures" ²⁷

In this opening section Mazel' briefly describes dimensions of thematic structures and their artistic, structural, and historic origins in music. He ascribes their artistic basis to the natural tendency in art for proportion.

In musical works, as in works of other arts, there exist proportions between parts (large as well as small)...Such proportions and relationships form rhythm in a broad sense of the word, that is, rhythm of a larger scale.
(p. 393) ²⁸

Hence proportion, the broad expression of which is rhythm, provides the basis for dimensions of thematic structures. The proportional changes in such dimensions constitute development.

Development of dimensions is an aspect of musical development that manifests itself through ordered variation in lengths of segments of a musical thought (theme), and is closely connected with development of melody, harmony, etc. (p. 394) ²⁹

Mazel' gives an example of the theme from the opening movement of Bach's *Violin Concerto in A minor (BWV 1041)*, which is illustrative of development in dimensions of thematic structures.

²⁷§1. Общее понятие о масштабно-тематических структурах"

²⁸В музыкальном произведении, как и в произведениях других искусств, присутствует пропорциональность частей (больших и малых)...Эти пропорции, соотношения образуют ритм в широком смысле слова, ритм большого плана.

²⁹Масштабное развитие—вид музыкального развития, который проявляется через закономерные изменения величины частей музыкальной мысли (темы) и тесно связан с развитием мелодическим, гармоническим и иным.

Example 1: J.S. Bach, *Violin Concerto in A Minor*
(BWV 1041), I



He writes

the overall structure 1 + 1 + 2 + 4 is further elaborated by differentiated inner relationships of segments: the [middle] two-bar phrase contains two one-beat segments plus a one bar-one, and the concluding four-bar phrase contains four one-beat segments plus a two-bar one. Here the path from the opening, short impulses does not extend toward a singing phrase, but toward an active development of the melodic line, encompassing a broad range and characterized by intense development (an ascending hidden voice with widening skips away from the “repelling” intonation of pitches a-g[♯]-a). (p. 395) ³⁰

Mazel’s presentation of the dimensions of thematic structure of this Bach theme is mainly a description of the theme’s motivic structure, the main emphasis of which is the proportion exhibited therein (i.e. 1 + 1 + 2 + 4). It is noteworthy that the numeric representation of that proportion corresponds to the bar groupings in the theme,

³⁰общая структура 1 + 1 + 2 + 4 еще осложнена дифференцированными внутренними соотношениями частей: в [средней] двутактной фразе—два полутакта плюс одготакт, а в завершающей четырехтактной фразе—четыре полутакта плюс двутакт. Здесь путь от начальных коротких импульсов ведет не к певучей фразе, а к активному развертыванию мелодической линии, охватывающей широкий диапазон и отличающейся интенсивным развитием (восходящей скрытый голос, «отталкивание» звуков от интонации a-g[♯]-a с возрастанием скачков при отталкивании).

with the separate motives not being restricted by bar lines, freely overlapping them. This aspect of proportion in bar orderings of dimensions of thematic structures has its roots in G.E. Conus's (1862–1933) metrotechtonicism, which seeks to illustrate proportion and symmetry in form through the enumeration of "structural cells." These are usually, but not always, confined to a single bar.³¹ Mazel' applies this principle to dimensions of thematic structures. In contrast to Conus, however, he does not take the dogmatic view that proportion is omnipresent. Moreover, he is very much aware of the motivic structure in themes, and will not designate proportional divisions if they contradict that structure—something Conus had no qualms about doing. That was one of the main problems of metrotechtonicism: in its attempt to illustrate proportion it often ignored the motivic and thematic divisions in the music.

The motivic relationships in a theme are viewed by Mazel' as the main generators of proportional dimensions.

Since the dimensions of thematic structures are *engendered* by motivic development, motivic relationships within a theme, these are very essential to the understanding of the nature of dimensions of thematic structures, and define some of their main organizational principles. (p. 396)³²

Mazel' sees the aspect of motivic development as an important factor in the historical evolution of dimensions of motivic structures.

Various highly organized dimensional structures with successive and intensive dimensional development, could become firmly established and gain wide use only at the beginning of that period in the history of the art of music, when, firstly, the principle of quadratic structures, combining possible dimensional development with maximum reciprocal balance

³¹McQuere, 295.

³²Поскольку масштабно-тематические структуры порождены мотивно-тематическим развитием, мотивно-тематическими соотношениями, эти последние очень существенны для понимания природы масштабных структур и определяют некоторые их важные закономерности.

between parts, was firmly crystallized—and, secondly, when the relatively independent inner logic of *motivic* development in *themes*, one aspect of which appears as development in structural dimensions, acquired greater significance. (p. 394) ³³

Mazel' does not specify what period in music history dimensions of thematic structures appeared in first, but the implication, judging by his citation of Bach, is that they occurred first in the Baroque. This indefinite historical placement of dimensions of thematic structures concludes Mazel's brief initial description of this musical element.

"SECTION TWO: Periodicity" ³⁴

In this section Mazel' discusses the simplest kind of dimensions of thematic structure, periodicity. His discussion includes definitions of periodicity and its specific manifestations as well as its limitations. The section concludes with comments on the expressive possibilities engendered by periodicity.

Mazel' defines periodicity as

a structure made up of two or more parts that are equal in dimension, and essentially similar (mutually corresponding) in melodic and rhythmic outlines. (p. 396) ³⁵

He sees repetition as the structural basis for periodicity.

³³Разнообразие и высокоорганизованные масштабные структуры с последовательным и интенсивным масштабным развитием могли утвердиться и получить широкое распространение, лишь начиная с определенного этапа истории музыкального искусства,— когда, во-первых, прочно откристаллизовался принцип квадратности структур, сочетающий возможное масштабное развитие с максимальной взаимной уравновешенностью частей, во-вторых, когда приобрела большое значение относительно самостоятельная внутренняя логика мотивно-тематического развития, одной из сторон которого являются развитые масштабные структуры.

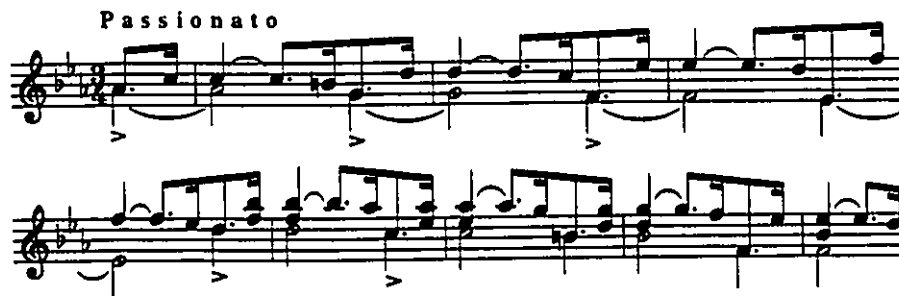
³⁴"§2. Периодичность"

³⁵построение, состоящее из двух или нескольких частей, равных по масштабу и в основном сходных (соответствующих друг другу) по мелодическо-ритмическому рисунку.

Periodicity is based on complete or (more often) modified *repetition* of some structure. With that, the number of repetitions, the dimensions of the repeated structures and their inner organization, can greatly vary. (p. 396) ³⁶

As an example that exhibits periodicity, Mazel' quotes the opening eight bars of the *Passionato* from Schumann's *Carnaval* (*Op. 9*).

Example 2: R. Schumann, *Carnaval* (*Op. 9*)



He has this to say about this theme:

eight similar motives create intensive development that is connected with a successive widening of skips in the first four motives (with which emerge two hidden voices that move in contrary motion), beside which the whole eight bars form a single ascending and descending wave. (p. 398) ³⁷

The aspects of melodic structure—i.e. skips, hidden voices, direction of motion, and ascent and descent of melodic waves—will all be dealt with in Chapter Four of this

³⁶Периодичность возникает на основе точной или (чаще) видоизмененной повторности кокого-либо построения. При этом количество повторений, масштабы повторяемого построения и его внутреннее строение могут быть весьма различными.

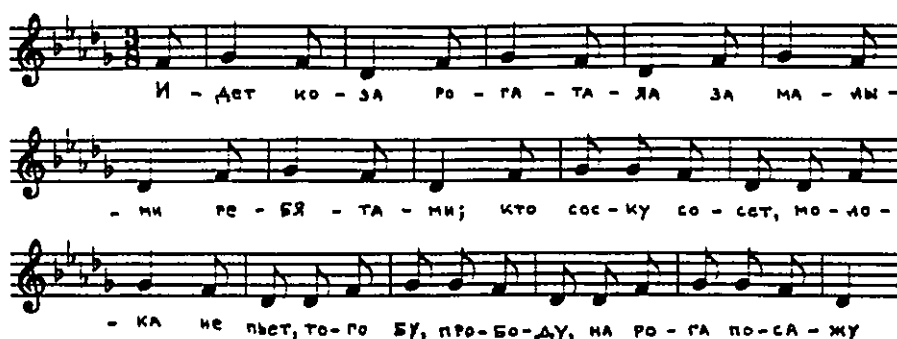
³⁷Восемь сходных мотивов создают интенсивное развитие, связанное с последовательным расширением скачка в первых четырех мотивах (при этом возникает скрытое двухголосие с противоположным движением голосов), а кроме того, во всем восьмитакте образуется единая волна нарастания и спада.

thesis. In general, Mazel's broad definition of periodicity can include many repeated structures of which the Schumann melody is but one example.

For instance, a simpler eight-bar period with two similar four-bar phrases can in itself represent periodicity, for the second four-bar phrase is a modified repetition of the first. Of course, periodicity also appears in sequential or sequentially-based structures with any number of links, as well as in varied repetitions of some turn. (p. 396) ³⁸

Such broad application of periodicity makes it one of the most common dimensions of thematic structure. Mazel' points to its frequent occurrence in folk music as an indication of its basic nature. As an illustration, a Russian song from a collection by Rimsky-Korsakov is quoted.

Example 3: Russian Folk Song from a collection by N. Rimsky-Korsakov



The dimensions of thematic structure of this folk song constitute a very simple form of periodicity: the repetition of the same motive with slight rhythmic modification.

³⁸Например, простейший восьмитактный период из двух сходных четырехтактных предложений представляет собой периодичность, ибо второй четырехтакт есть видоизмененное повторение первого. Периодичностью является, разумеется, и секвенция или секвенцеобразное построение из любого числа звеньев, равно как и варьированные повторения кокого-нибудь оборота.

The element of repetition in periodicity could be viewed as a limiting factor. Mazel' sees three limitations as engendered by repetition.

Above all, the possibilities of development are limited, for lack of change leaves few possibilities for selection in dimensions of a repeated structure; whereas more intensive development demands the overcoming of the opening, smaller dimensional confines. Furthermore, similar structure in itself is not predisposed to sufficient closure and completeness in a work, for repetition (exact or with modification) can theoretically keep on occurring indefinitely. And finally, . . . in as much as periodic repetition is a very important factor of regulated division, a structure that is wholly based on such repetition is often rendered insufficiently smooth, and has a tendency to disintegrate into a succession of similar parts. (p. 398) ³⁹

Despite such limiting properties of repetition, it liberates at the same time other aspects of the music. As examples, Mazel' mentions the increased role of harmony and intensification of expressive possibilities that accompany repetition.

Admittedly, quite often factors operate to surmount to a certain degree the enumerated limitations of periodicity. Thus, *harmonic development* in a simple period with two similar phrases—above all in the relationship between the different cadences of the phrases, in which the half cadence is answered “at a distance” by the full cadence—*fastens* the two similar parts of a period into a sufficiently solid whole. . . . Periodicity is [also] capable of *intensifying* the expressiveness of a repeated turn. Constant repetition

³⁹Ограничены прежде всего возможности развития, ибо неизменным остается раз избранный небольшой масштаб повторяемого построения, тогда как более интенсивное развитие обычно требует преодоления первоначальных небольших масштабных рамок. Далее, побочная структура сама по себе не предрасполагает к достаточной замкнутости, законченности построения, ибо повторность (точная или видоизмененная) может в принципе длиться неограниченно. И наконец, поскольку . . . периодическая повторность является важнейшим фактором упорядоченной расчлененности, структура, всецело основанная на такой повторности, обычно оказывается недостаточно слитной: в ней есть тенденция к распаду на ряд сходных частей.

of a calm phrase redoubles the calm character of the music, while the repetition of a sharp, persistent motive, increases and forces the sharpness of its expression. The effect of many ostinatos is, in part, based on this.
(p. 402) ⁴⁰

“SECTION THREE: Grouped periodicities” ⁴¹

In this section Mazel' continues to discuss the topic of periodicity in dimensions of thematic structures. Here, however, more complex periodic thematic structures—grouped periodicities—are considered. Mazel' presents the main types of groupings of periodic dimensions of thematic structures, singling out paired periodicities as the most significant type of grouped periodicities. He ascribes the origins of paired periodicities to couplet forms in folk music, and concludes the section by linking the dimensional thematic structures of some polyphonic themes to the same couplet forms.

Mazel' offers the following as a definition of grouped periodicities.

[Grouped periodicities] is used to refer to a structure that does not itself represent periodicity, but consists of two or more parts, each of which represent periodicity. One has in mind structures of the type $a + a + b + b$, $a + a_1 + b + b_1$ (two periodicities...), $a + a_1 + b + b_1 + c + c_1$ (three periodicities...), $a + a_1 + b + b_1 + c + c_1 + d + d_1$ (four periodicities...), etc. Groups in which the actual periodicity does not consist of two, but rather of more similar elements, as for instance $a + a_1 + a_2 + b_1 + b_2 + b_3 + b_4$ can

⁴⁰Правда, сплошь и рядом действуют факторы, в той или иной степени преодолевающие перечисленные черты ограниченности. Так, гармоническое развитие в простом периоде из двух мелодически сходных предложений, при котором половинному кадансу отвечает «на расстоянии» полный, скрепляет две сходные части периода в достаточно прочное целое... периодичность [тоже] способна усиливать выразительность повторяемого оборота. Неоднократная повторность спокойной фразы усугубляет спокойный характер музыки, повторение же острого, настойчивого мотива увеличивает, нагнетает его острую выразительность. На этом основан, в частности, эффект многих ostinato.

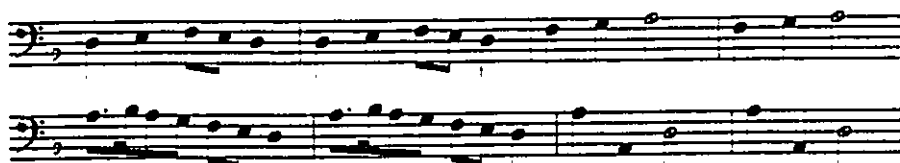
⁴¹“§3. Группы периодичностей”

also be encountered. (p. 402) ⁴²

This definition is fairly technical and requires the reader to keep in mind the definition of periodicity from the previous section, a definition that extends only to those thematic structures whose separate parts are "equal in dimension and essentially similar in melodic and rhythmic outlines." (see Section 2 above) Hence, in grouped periodicities, the individual groupings are not necessarily equal in dimension, and will therefore not form periodicities with respect to each other. In other words, $a + a_1$ is not necessarily equal in dimension to $b + b_1$, or $c + c_1$, etc.; but a is equal to a_1 , as is b to b_1 , c to c_1 , etc., each forming a separate periodicity that can be grouped with others to form a grouped periodicity.

Each of the mentioned types of periodicities in Mazel's definition is illustrated by several musical examples. The most interesting of these are a theme from Mahler's *Symphony No. 1 (III)*, illustrating four periodicities, and a Russian song from a collection by Rimsky-Korsakov, illustrating two periodicities.

Example 4: G. Mahler, *Symphony No. 1 in D Major (1884), III*



The eight-bar theme from Mahler's *Symphony No. 1 (III)*, quoted from the muted, double-bass statement of it, is a minor-mode version of the old French song "Frère

⁴²[Группы периодичностей] называется структура, не являющаяся периодичностью, но состоящая из двух или нескольких частей, каждая из которых представляет собой периодичность. Имеются в виду построения типа $a + a + b + b$, $a + a_1 + b + b_1$ (две периодичности...), $a + a_1 + b + b_1 + c + c_1$ (три периодичности...), $a + a_1 + b + b_1 + c + c_1 + d + d_1$ (четыре периодичности...) и т.д. Встречаются и такие группы, в которых сами периодичности состоят не из двух, а из большего числа сходных элементов, например $a + a_1 + a_2 + b_1 + b_2 + b_3 + b_4$.

Jacques." Its grouped periodicities form an $a + a + b + b + c + c + d + d$ structure in which the dimensions of each of the four periodicities is equal. This, of course, is to be expected if one considers the original old French song which is a four-part canon that naturally must have four phrases of equal length. These could be illustrated by the following formula:

$$\underbrace{\underbrace{a+a}_{2} + \underbrace{b+b}_{2}}_4 + \underbrace{\underbrace{c+c}_{2} + \underbrace{d+d}_{2}}_4$$

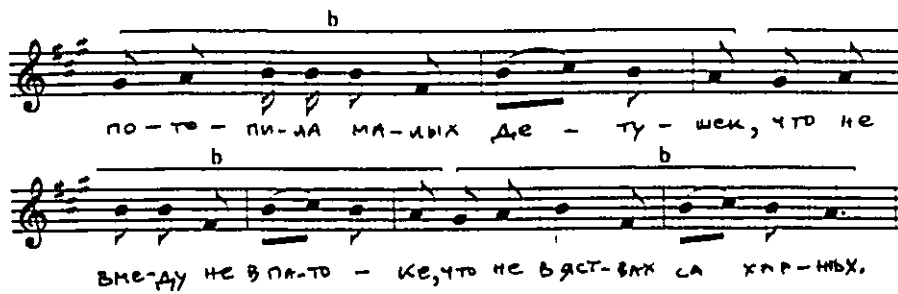
It should be noted that because the adjacent two-bar phrases lack rhythmic and melodic identity, and furthermore, the adjacent four-bar phrases lack such identity, the resultant structure is a *group* of smaller two-bar periodic structures that can not sum up to larger periodicities; the reason for this is an absence of rhythmic and melodic identity between the larger two- and four-bar phrases required by definition of periodicities.

Example 5: Russian Folk Song from a collection by N. Rimsky-Korsakov

Andantino quasi Allegretto

За-пе-ти-ся, пе-теб, за-пе-ти-ся, ты раз-вей-ся, ты-ба зо-ло-та - я, раз-вер-ни-ся, кам-ка траб-ча - та - я. Ах ты, се ра я, у - ти - ца,

Allegretto



The dimensions of thematic structure of the Russian song taken from a collection by Rimsky-Korsakov, are more complex than those of Mahler's version of "Frère Jacques." Its periodicities form an $a+a+a+b+b+b+b$ structure of two periodicities. At first sight the two periodicities seem unbalanced, but Mazel' makes a relevant observation:

...the first periodicity consists of three four-bar phrases, and the second one, from four three-bar phrases, so that both periodicities are rendered equally long. (p. 404) ⁴³

This equality in dimension does not lead Mazel' to designate the grouping of the periodicities as itself a periodicity. The term he uses to characterize the resultant structure is "balance," saying that "such balance will not always exist." (p. 404) ⁴⁴

This Russian song, with its three four-bar repetitions of the first periodicity equaling the four three-bar repetitions of the second periodicity, poses an interesting question about the dimensions of the repeated structures within periodicities. How do these dimensions relate to those of the periodicities themselves? Mazel' avoids this question in the Mahler example, but tries to give a partial answer for the Russian song by saying that the equality in dimensions of its two periodicities is accidental—"it will not always exist" is all he has to say. He does, however, directly address

⁴³...первая периодичность состоит из 3 четырехтактов, вторая из 4 трехтактов, так что обе периодичности оказываются равновеликими.

⁴⁴"такой уравновешенности может и не быть."

the question of dimensions of grouped periodicities when they change in a systematic way.

Groups of periodicities in which dimensions of periodicities increase (...), will be referred to as ascending; in the contrary case (...), they will be referred to as descending. (p. 404) ⁴⁵

He gives examples of both these types of grouped periodicities. For the ascending grouped periodicities he cites the subject of the *Fugue* from J.S. Bach's *Fantasy and Fugue in G Minor (BWV 542)*.

Example 6: J.S. Bach, *Fugue from Fantasy and Fugue in G Minor*
(BWV 542)



Here the dimensions of thematic structure are $\frac{1}{2} + \frac{1}{2} + 1 + 1$, producing what Mazel' calls ascending grouped periodicities.

For the descending grouped periodicities he cites a Russian song from a collection by A.K. Liadov.

⁴⁵Группу периодичностей, в которой масштаб периодичностей возрастает (...), назовем восходящей; в противоположном случае (...) — нисходящей.

Example 7: Russian Folk Song from a collection by A.K. Liadov



Here the dimensions of thematic structure are $2 + 2 + 1 + 1$, producing two descending grouped periodicities.

Both of the cited ascending and descending grouped periodicities are of the type identified earlier as two periodicities. Mazel' considers that to be the most common type of grouped periodicities, ascribing particular significance to their variant that he calls paired periodicities. He sees this variant as originating in folk music.

Very often the structure of double periodicities can be encountered in couplet forms of folk songs of different nations (...) Therein that structure represents a relatively complete musical whole whose two parts complement each other in one way or another—answering each other—for which reason it only follows that such structure is referred to as *paired periodicities*. (p. 405-6) ⁴⁶

It should be noted that Mazel's definition of a folk song is fairly loose and certainly does not have the specific connotations that its definition has today in the West.⁴⁷

⁴⁶Весьма часто встречается структура двух периодичностей в народной песне разных народов (...) как форма куплета... В подовных случаях эта структура представляет собой относительно законченное музыкальное целое, и ее две половины в том или ином отношении дополняют друг друга, отвечают друг друга, в силу чего подобную структуру естественно назвать парой периодичностей.

⁴⁷Mazel' takes folk songs to be static objects in his theoretical discussions, ignoring totally the issues of orality of transmission that in the West must accompany any consideration of folk songs. Western students of folk music would certainly object to his static treatment of a dynamic phenomenon embodied by the folk song. (see Introduction to this thesis for further discussion)

The couplet form, however, that he is referring to connotes fairly specifically the practice in Russian folk songs of repeating a line to form a couplet.

Mazel' is very careful to point out the distinctness of paired periodicities as a variant of two periodicities, the former being characterized by structural completeness that the latter lacks.

...if an $a + a_1 + b + b_1$ structure is found, for instance, in a sequentially ascending passage in the development of a sonata, it is not appropriate to call it paired, as more suitable terms are two periodicities, groups of two periodicities, etc. (p. 406) ⁴⁸

The main distinction is structural completeness that a sequential passage by its very nature lacks.

Mazel' identifies three types of paired periodicities that have their origins in the couplet forms of folk songs.

It is possible to distinguish between several types of pairs on the basis of the relationships between the two periodicities: 1. *Complementary pair* in which the second periodicity serves as a complementary answer to the first one, sometimes providing contrast of different degree to it...2. *Varying pair* in which the second periodicity is very akin to the first one, appearing as its *variation*. (p. 406-7) ⁴⁹

Mazel' gives several examples of either Russian or Ukrainian songs to illustrate each type of paired periodicity. Besides these he cites themes from the Classical repertoire that contain the mentioned paired structures. The theme of the *finale* from

⁴⁸если структура $a + a_1 + b + b_1$ встретится, например, внутри секвентного нарастания сонатной разработки, ее нецелесообразно именовать парой и следует говорить о двух периодичностях, группе из двух периодичностей и т. д.

⁴⁹Можно различить несколько видов пар в зависимости от соотношения между двумя периодичностями: 1. Ответная пара, при которой вторая периодичность служит дополняющим ответом по отношению к первой, иногда более или менее заметно контрастируя ей...2. Вариантная пара, при которой вторая периодичность весьма родственна первой, представляет собой ее вариант.

Tchaikovsky's *Symphony No. 5 (Op. 64)* is cited as an example of a complementary paired periodicity.

Example 8: P.I. Tchaikovsky, *Symphony No. 5 in E Minor (Op. 64), IV*



The second periodicity of this theme substitutes different pitches for the same rhythm that appears in the first. This results in the contrast that is specific to paired periodicities.

Tchaikovsky's *Meditation (Op. 72)* is cited as an example of varying paired periodicities.

Example 9: P.I. Tchaikovsky, *Meditation (Op. 72)*



The second periodicity in this theme freely inverts the intervallic motives of the first one.

Mazel' concludes this section on grouped periodicities with a brief consideration of thematic dimensions of polyphonic themes. He associates the origins of polyphonic themes with paired periodicities to couplet forms of folk songs. Referring to polyphonic themes, he writes

In such circumstances the absence of marked completion and closure in the structure of paired periodicities is made use of, i.e. its tendency toward further development is characteristic of polyphonic themes. Essentially, in folk songs, paired periodicities are but a form of the *couplet*, demanding repetition with different text. (p. 412) ⁵⁰

He cites a theme from Mozart's *Magic Flute* as a typical example of continuous polyphonic structure that has its roots in folk music.

Example 10: W.A. Mozart, *Magic Flute* (K. 620)



It is important to realize that Mazel' is using the theme from the *Magic Flute* only to make a connection between its dimensions of thematic structure and the couplet form in folk songs. He is not trying to establish the folk origins of the theme, but is only pointing out the connection between its continuous polyphonic structure and the couplet form of folk songs. To think that Mazel' is making a statement about Mozart's music or the *Magic Flute* in particular, would be a mistake.

⁵⁰В таких случаях используется отсутствие в структуре пары периодичностей большой законченности, замкнутости, т.е. ее тяготение к дальнейшему развитию, свойственное полифонической теме. В сущности, и в народной песне пара периодичностей есть лишь форма куплета, предполагающего повторение с другим текстом.

“SECTION FOUR: Summation. Progressive summation” ⁵¹

In this section Mazel' discusses dimensions of thematic structure that, unlike periodicity, are not based on repetition but rather summation. Summation, as the term implies, is a process of adding or stacking of thematic dimensions to produce a larger structure. The dimensions of a structure thus generated relate in a special way to those of structures that precede it. Structures preceding a summation will often, but not always, form some kind of a periodicity. Mazel's discussion of summation describes the structural principle—its main characteristics, as well as its origins in literature, poetry, and ultimately the thought process. He offers examples of the main types of summations, and concludes the section with a discussion of a particular type of summation, progressive summation.

The following description of summation as a thematic structure is offered.

...the dimensional aspect of this structure consists in the answering of two or more smaller structures, equal in size, by a larger one that is approximately equal to their sum (hence the term “summation”). This structure can be realized in the domain of two-bar structures ($\frac{1}{2} + \frac{1}{2} + 1, \dots$), four-bar structures ($1 + 1 + 2, \dots$), eight-bar structures ($4 + 4 + 8, \dots$), sixteen- or thirtysecond-bar structures..., as well as in the domaine of non-quadratic structures (for example, $3 + 3 + 6, \dots$). Furthermore, the number of the shorter initial structures can exceed two (for example, $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + 2, \dots$; $2 + 2 + 2 + 5, \dots$). Finally, the summed structure will not always exactly equal the sum of the initial ones (either exceeding or not quite equaling it)—what is important is that it be perceived as answering them... (p. 416) ⁵²

⁵¹“§4. Суммирование. Прогрессирующее суммирование”

⁵²...масштабная сторона этой структуры заключается в том, что двум или нескольким равным по величине более коротким построениям отвечает одно более длительное, приблизительно равное их сумме (отсюда и самый термин «суммирование»). Структура эта может реализоваться в пределах двутакта ($\frac{1}{2} + \frac{1}{2} + 1, \dots$), четырехтакта ($1 + 1 + 2, \dots$),

Mazel' gives several examples of each stated type of summation. Perhaps most representative among the examples is a theme from Schubert's *Symphony in C Major* ("The Great").

Example 11: F. Schubert, *Symphony No. 9 in C Major* ("The Great"), IV



This theme contains what Mazel' calls a "quadratic" summation—i.e. a structure each of whose parts is divisible by the number two. Thus, in this theme the third, summed sixteen-bar phrase answers the opening periodicity of two eight-bar phrases ($8 + 8 + 16$)—all the parts being divisible by 2.

Mazel' generally considers the quadratic summation to be the most frequent type of summation.

...the basic and most frequently encountered aspect of this structure appears as the quadratic (four- , eight- , sixteen-bar) structure, the first half of which contains *two equal* (and essentially similar in melodic and

восьмитакта ($2 + 2 + 4, \dots$), шестнадцатитакта или тридцатидвухтакта..., в пределах неквадратного построения (например, $3 + 3 + 6, \dots$). Далее, количество начальных коротких построений может быть больше двух (например, $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + 2, \dots$; $2 + 2 + 2 + 5, \dots$). Наконец, суммирующее построение может быть не точно равно сумме начальных (либо превышая ее, либо не достигая)—важно лишь, чтобы оно воспринималось как им отвечающее...

rhythmic outline) elements, and the second, non-periodic half, of which is equal to their sum in number of bars. (p. 417) ⁵³

As the initial description of summation indicates, the quadratic summation is only one type of summation—although it is a frequently encountered one.

Mazel' points out the tendency for summation in other arts, ultimately linking this tendency to the thought process.

...for instance, in literary works several short sentences will often be followed by a long one; while in [poetic] quatrains, the opening two, divided, rhyming lines will often be followed by a summed, flowing couplet... The cause from which the great effect of the tendency for summation on the relationship between similar thematic structures stems, most probably lies in the connection between that tendency and the general characteristics of the thought process: the ascertainment of similar facts and the enumeration of analogous points of view (theses), will naturally tend toward their generalization—summing up of those facts—and together with the enumeration, in their turn, toward their unification into a completely developed thought. (p. 419-20) ⁵⁴

In this way Mazel' links summation as a universal structure to the process of thinking—the process of arriving at a conclusion on the basis of given facts (i.e. summarizing). As a consequence of this universality, summation frequently appears in different art forms, and is especially vital to dimensions of thematic structure in music.

⁵³...основным и наиболее часто встречающимся видом этой структуры является квадратное (четырёх-, восьми-, шестнадцатитактное) построение, первая половина которого содержит два равных (и в основном сходных по мелодико-ритмическому рисунку) элемента, а вторая—непериодическая—половина по количеству тактов равна их сумме.

⁵⁴...например, в литературном произведении за несколькими короткими фразами иногда следует длинная; в [поэтическом] четверостишии два начальных отдельных стиха иногда суммируются затем слитным двустишием... Причина, по которой тенденция к суммированию действует с особой силой именно по отношению к сходным построениям в пределах темы, вероятно, заключается в связи этой тенденции с общими свойствами мышления: констатация сходных по характеру фактов, перечисление аналогичных положений, тезисов естественно тяготеет к их обобщению, суммирующему эти факты и, в свою очередь, объединяющемуся вместе с их перечислением в одну цельную развернутую мысль.

Summations can act in succession to generate development of thematic dimensions.

Sometimes general thematic development includes among its qualitative means the transition from a summed structure that is less vividly expressed (for example, $a + a_1 + a_2b$), to a one that is more so ($a + a_1 + B$).
(p. 425) ⁵⁵

Mazel' gives the complete *Rondeau* from François Couperin's "*Les Moissonneurs*" (*Second Livre de pièces de Clavecin, VI^e Ordre*), as an example of such a thematic structure of successive summations.

Example 12: F. Couperin, "*Les Moissonneurs*" (*Second Livre de pièces de Clavecin, VI^e Ordre*)



⁵⁵ Иногда общее развитие темы включает в качестве одного из средств переход от менее ярко выраженной структуры суммирования (например, $a + a_1 + a_2b$) к более ярко выраженной ($a + a_1 + B$).

The cited thematic formulae that generate successive summations are realized here in two "quadratic" phrases overlapping the bar lines: $1 + 1 + 2$ equaling $a + a_1 + a_2b$, and $1 + 1 + 2$ equaling $a + a_1 + B$.

Mazel's mathematical inclinations are carried even further in his conceptualization of progressive summations. Like other types of summations, progressive summations are the result of dimensional development of thematic structures. Mazel identifies two types of progressive summations—arithmetic and geometric—but only discusses the latter extensively, dismissing the former as structurally unstable.

... arithmetic progression in dimensions of a structure (for instance, two-bar, three-bar, four-bar)... does not possess enough completeness, being in theory infinitely long; and at the same time it quickly loses its effect as the relative difference between adjacent structures sharply diminishes (two bars are twice as large as a single bar, but three bars are only one half times as large as two). (p. 417) ⁵⁶

Such arithmetic progression leads to structural instability, on the basis of which Mazel justifies the limitation of his discussion of progressive summations to only those that he considers structurally stable—i.e. geometric progressive summations: "two-bar, four-bar, eight-bar." (p. 417) ⁵⁷

Various progressive summations appear as double summations, triple summations, etc. Under *double summations* is understood a structure in which a common (onfold) summation is followed by a complete structure equal in length to everything that preceded; and thus, not only two, but rather three elements are summed... By analogy, *triple* summation yields the relationship $1 + 1 + 2 + 4 + 8$ (or $\frac{1}{2} + \frac{1}{2} + 1 + 2 + 4$)... Accordingly, in the

⁵⁶... арифметическая прогрессия размеров построений (например, двутакт, трехтакт, четырехтакт)... не обладает достаточной законченностью, в принципе может продолжаться неограниченно, и в то же время эффект ее быстро снижается, так как относительное различие между соседними построениями резко уменьшается (двутакт вдвое больше одного такта, но трехтакт только в полтора раза больше двутакта).

⁵⁷"двутакт, четырехтакт, восьмитакт."

quadruple summation, the relationship $\frac{1}{2} + \frac{1}{2} + 1 + 2 + 4 + 8$ is formed.

Triple summation, and especially quadruple summation, is a great rarity.

Double summation is used fairly frequently. (p. 433) ⁵⁸

Hence it can be observed from Mazel's description of various geometric progressive summations that the initial structure is always some sort of periodicity that is followed by a summation; as the successive summations follow, they each result dimensionally in the sum of all the preceding summations and the opening periodicity. Mazel' cites only one example each of triple and quadruple summations, the one given here being a sixteen-bar excerpt from Chopin's *Prelude No. 3 in G Major (Op. 28)*, bars 12-27, that contains a quadruple summation.

Example 13: F. Chopin, *Prelude No. 3 in G Major (Op. 28)*



The number of examples of double summations Mazel' cites is far greater. Because

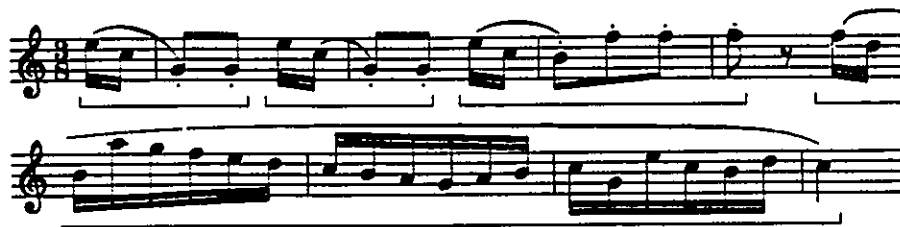
⁵⁸Разновидностями прогрессирующего суммирования являются двойное суммирование, тройное суммирование и т. д. Под двойным суммированием понимается такая структура, в которой за обычным (однократным) суммированием следует целное построение, равное по протяжению всему предшествующему и, таким образом, суммирующее уже не два, а три элемента. В пределах восьмитакта это дает соотношение $1 + 1 + 2 + 4$. Аналогично этому тройное суммирование дает соотношение $1 + 1 + 2 + 4 + 8$ (или $\frac{1}{2} + \frac{1}{2} + 1 + 2 + 4$). При четверном суммировании соответственно образуется, например, соотношение $\frac{1}{2} + \frac{1}{2} + 1 + 2 + 4 + 8$. Тройное суммирование, а особенно четверное, — большая редкость. Двойное же суммирование применяется довольно часто.

such summations are more common, he accordingly devotes greater attention to them, observing that

double summations are above all found where there are very short opening motives. In those circumstances the first summation is also not distinguished by significant duration, rendering the second (repeated) summation all the more appropriate as it answers all three elements. †⁰ One of the possibilities of simple summation—development of short *rhythmic impulses* (or melodic “embryos”) into a more continuous and expanded *line*—becomes here the main, the basic, and the most typical possibility. (p. 436) ⁵⁹

Among the examples that Mazel' cites which are illustrative of such possibilities, is a theme from the second movement of D.F.R. Kuhlau's *Sonatina* (*Op. 55, No. 1*).

Example 14: D.F.R. Kuhlau, *Sonatina* (*Op. 55, No. 1*)



The dimensions of thematic structure here overlap the bar lines to form a double summation $1 + 1 + 2 + 4$.

⁰The three elements being the two repeated structures of the opening periodicity and the first summation.

⁵⁹двойное суммирование встречается прежде всего при очень кратких начальных мотивах. В подобных условиях первое суммирование тоже не отличается сколько-нибудь значительной протяженностью и оказывается уместным второе (повторное) суммирование, отвечающее всем трем элементам. Одна из возможностей простого суммирования—развитие от коротких ритмических импульсов (или «зачатков» мелодии) к более непрерывной и развернутой линии—становится здесь главной, основной, наиболее типичной возможностью.

Mazel' concludes this section with a mention of a type of double summation to which Hugo Riemann ascribed particular significance.

As far as motivic-thematic relations' ps are concerned, sometimes (most often in simpler cases) the second summation typically begins with a modified repetition of the first summation, subsequently "carrying it to its conclusion." For instance $\frac{a}{1} + \frac{a}{1} + \frac{ab}{2} + \frac{abcd}{4} \dots$ Although, as was stated, double summations are encountered frequently enough, their frequency of occurrence can not nearly compare to that of simple summations. Nevertheless, Riemann considered the mentioned structure $a + a + ab + abcd$ to be the "basic type" of eight-bar phrase. Apparently, Riemann proceeded not from the frequency of occurrence of that type [of eight-bar phrase], but rather from the theoretical consideration of optimum continuity, flow, and successive thematic renewal. (p. 436) ⁶⁰

Mazel' does not provide a reference to any particular work in which Riemann discusses the basic type of eight-bar phrase, assuming the reader's familiarity with the theories of Riemann. ⁶¹ His mention of Riemann and the latter's formalization of a somewhat infrequent thematic structure, reflects a popular view in the Soviet Union of aspects of Riemann's theories as overly speculative and "scientific."

⁶⁰Что касается мотивно-тематических соотношений, то иногда (это типично для простейших случаев) второе суммирование начинается с видоизмененного повторения результата первого суммирования, а затем «доразвивает» его. Например: $\frac{a}{1} + \frac{a}{1} + \frac{ab}{2} + \frac{abcd}{4} \dots$ Хотя, как упомянуто, двойное суммирование встречается довольно часто, но все же здесь не может быть даже отдаленного сравнения с частотой применения суммирования простого. Впрочем, Риман считал упомянутую структуру $a + a + ab + abcd$ «основным типом» восьмитакта. Видимо, Риман исходил не из частоты применения типа [восьмитакта], а из теоретических соображений об увеличении непрерывности, слитности и о последовательном тематическом обновлении.

⁶¹Riemann discusses this topic in the opening section, "Die volle achttaktige Periode als normative Grundschemata," of Chapter Four of *System der Musikalische Rhythmik und Metrik* (1903).

“SECTION FIVE: Splitting” ⁶²

In this section Mazel' discusses dimensions of thematic structure that, in contrast to summation, use the opposite principle of splitting to generate successive thematic structures. Mazel' is careful to point out that the frequency of occurrence of splitting is far smaller than that of summation. In fact, he considers splitting to be characteristic of specific genres, by contrast with the universality of summation. His presentation of splitting leads to this as its final point. Other aspects discussed include an initial definition of summation, followed by examples of different applications of that principle. A comparison is undertaken between splitting and summation, bringing out the relative shortcomings of the former. As well, certain formal properties of splitting as a thematic structure are discussed.

Mazel' offers the following definition of splitting.

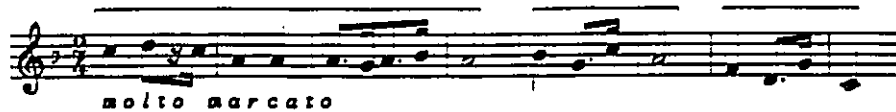
Splitting is used to refer to a structure in which a larger, flowing structure is followed by smaller ones, the overall length (sum) of which equals (or approximately equals) that of the larger structure. In other words, in contrast to summation, in a splitting structure non-periodicity is followed by a periodicity: the first part of the structure is non-periodic, the second, periodic. Most commonly encountered dimensional relationships of this structure are $2 + 1 + 1$ or $4 + 2 + 2$. (p. 437-8) ⁶³

Among the examples illustrative of a splitting structure is a theme from Georges Bizet's *Carmen*.

⁶²“§5. Дробление”

⁶³Дроблением называется структура, в которой за слитным большим построением следуют меньшие, общая протяженность (сумма) которых равна (или приблизительно равна) протяженности начального большего построения. Иными словами, в противоположность суммированию, в структуре дробления за неперiodичностью следует периодичность: первая часть построения—неперiodическая, вторая—перiodическая. Наиболее часто встречающиеся масштабные соотношения в этой структуре $2 + 1 + 1$ или $4 + 2 + 2$.

Example 15: G. Bizet, *Carmen* (1875)

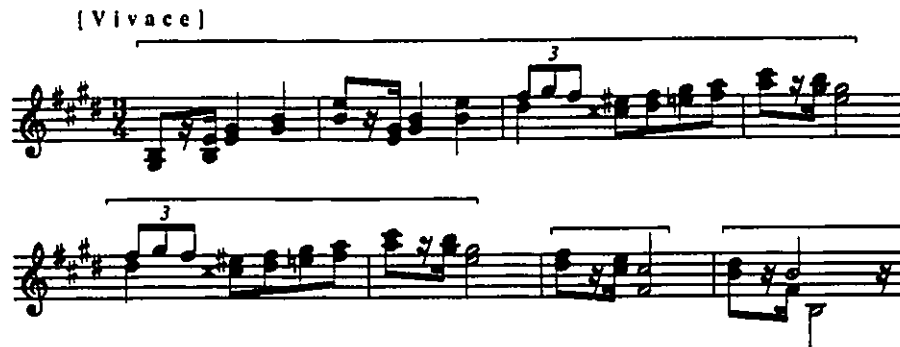


This example illustrates the simplest type of dimensional splitting—i.e. a longer structure being split only once. Further splitting is possible.

The process of splitting can be reiterated when a smaller structure, having been formed, is in turn itself subjected to further splitting. This leads to a structure of *double splitting* $4 + 2 + 1 + 1$, in which is easily recognized the retrograde of double summation. (p. 441) ⁶⁴

Mazel' cites the opening of Chopin's *Mazurka* (*Op. 6. No. 3*), as an example of double splitting.

Example 16: F. Chopin, *Mazurka* (*Op. 6, No. 3*)



⁶⁴Процесс дробления может быть неоднократным—образовавшееся малое построение в свою очередь подвергается дальнейшему дроблению. Возникает структура двойного дробления $4 + 2 + 1 + 1$, в которой легко узнать обращение двойного суммирования.

Other types of elaborations of the splitting structure are associated with the opening phrase.

...elaboration is created, in that case, when the first half appears as a non-periodic whole; but instead of being flowing, it is structured as either a summation or a splitting. The structures formed are $\frac{1+1+2}{4} + 2 + 2$, or $\frac{2+1+1}{4} + 2 + 2$. The *first* of these is more commonly met with, being very close in characteristics of genre (principally those of dance) to simple splitting...(p. 441) ⁶⁵

As an example of this first elaborated type of splitting, Mazel' quotes a *Waltz* by Johann Strauss (Jr.).

Example 17: J. Strauss (Jr.), *Waltz*



The dimensions of thematic structure here are the above cited ones: $\frac{1+1+2}{4} + 2 + 2$.

Of the second type of elaborated splitting (i.e. $\frac{2+1+1}{4} + 2 + 2$), Mazel' states that

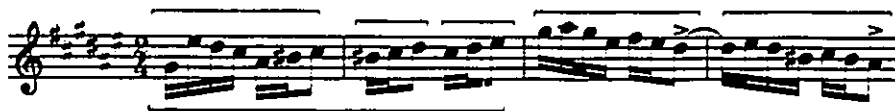
The *second* structure is especially interesting in the sense that it yields twofold splitting: as a whole and within the first half. Because of this, the

⁶⁵...усложнение создается в том случае, когда первая половина представляет собой цельную, непериодичную, но не слитную часть, а именно—построена как суммирование или дробление. Образуются структуры $\frac{1+1+2}{4} + 2 + 2$ и $\frac{2+2+1}{4} + 2 + 2$. Первая из них встречается чаще и очень близка обычному дроблению по жанровому облику (главным образом—танцевальность)...

expressive possibilities of splitting emerge in a very clear way. (p. 442) ⁶⁶

A *Polka* by M.A. Balakirev is cited as an example of such twofold splitting.

Example 18: M.A. Balakirev, *Polka*



The dimensions of thematic structure of this *Polka* are smaller than those Mazel' cites in explaining the two-fold structure of splitting. They are $\frac{1+\frac{1}{2}+\frac{1}{2}}{2} + 1 + 1$.

As was stated, Mazel' considers the frequency of occurrence of splitting to be far smaller than that of summation. He attributes this to three main factors.

Firstly, the structure of summation (for instance, $1 + 1 + 2$) can be, and often is repeated many times in a row... The structure of splitting (for instance, $2+1+1$) is rarely repeated more than two or three times... *Secondly*, summation can be found in all different dimensions, while the frequency of application of splitting sharply declines with the increase in dimensions of a structure (already the structure $16 + 8 + 8$ is found very rarely, while $8 + 8 + 16$ is fairly common)... *Thirdly*, the structure of summation is applied with far more *intensity* than the structure of splitting: one frequently finds a structure of summation in which its separate parts (the opening similar structures or the summed part) are also organized according to the principle of summation. While the examples of simultaneous application of splitting, both in total and in part, are on the other hand rare. (p. 443–4) ⁶⁷

⁶⁶Вторая структура представляет особый интерес в том смысле, что дает дробление двояко: в целом и внутри первой части. Благодаря этому выразительные возможности дробления выступают особенно явственно.

⁶⁷Во-первых, структура суммирования (например, $1+1+2$) может быть повторена и часто

Also noteworthy is Mazel's reference to splitting structures that play a role in closure.

A splitting structure is sometimes rendered the second half of a closed structure... Such splitting... , *concluding* the preceding structure, can be called a "half" structural cadence, by contrasting analogy with summation, which appears often in the role of a "full" structural cadence. (p. 447) ⁶⁸

This analogy with harmonic cadences emphasizes the difference between splitting and summation when serving the role of ending a thematic structure: splitting lacks completion that is naturally associated with the structure of summation.

In conclusion, Mazel' points out that splitting is more or less limited to genres in which its specific dimensional properties are used.

If summation provides the natural possibility of movement from short, metrorhythmic impulses toward a more complete line, then splitting represents the opposite possibility. And that possibility of development, directed toward the *accentuation of rhythmic moments* (i.e. short, similar impulses), is very essential to dance. The splitting structure is especially widespread in waltzes: the opening structure, after which follow—as if by inertia—short motives, lends itself to exposing the sliding nature of dance... The splitting structure is also widespread in polkas and

повторяется много раз подряд... Структура же дробления (например, $2+1+1$) редко повторяется более двух или трех раз... Во-вторых, суммирование часто встречается в самых различных масштабах, тогда как частота применения дробления весьма резко падает вместе с возрастанием масштаба построения (уже структура $16+8+8$ встречается очень редко, тогда как $8+8+16$ —достаточно часто)... В-третьих, структура суммирования применяется несравненно интенсивнее структуры дробления: необычайно часто встречается такая структура суммирования, в которой отдельные ее части (начальные сходные построения или суммирующая часть) тоже организованы по принципу суммирования. Примеры же одновременного применения дробления и в целом и в его частях, наоборот, редки.

⁶⁸ Структура дробления иногда оказывается структурой второй половины законченного построения... Такое дробление... , завершающее предшествующее построение, можно назвать «половинным» структурным кадансом по обратной аналогии с суммированием, часто выступающим в роли «полного» структурного каданса.

mazurkas... (p. 448) ⁶⁹

Mazel's conception of general uses of the dimensional thematic structure of splitting reflects that aspect of the theory of integrated analysis which seeks to "facilitate the concrete definition and further enrichment" of existing information about the historical development of musical language and style (see p. 15 of thesis for Mazel's description of goals of integrated analysis).

"SECTION SIX: Splitting with closure" ⁷⁰

In this section Mazel' presents a dimensional thematic structure that combines the earlier discussed splitting and summation to produce splitting with closure. Contrary to what its name suggests, this thematic structure has closer links with summation than with splitting. Mazel's presentation begins with this point. He goes on to discuss the commonest manifestations of this structure, singling out the *classical* type of splitting with closure as particularly frequent. He sees splitting with closure as an embodiment of logical development of musical thought, identifying four distinct stages in this process. Also discussed are different forms of splitting with closure: non-quadratic splitting with closure, "centered" splitting with closure, and different types of progressive splitting with closure. Of particular interest is the last of these structures. Mazel' mentions two Preludes by Chopin and Skriabin that in themselves represent complete dimensional thematic structures of progressive splitting with closure. To see complete pieces that are structured around the thematic principles Mazel' presents is particularly enlightening. His discussion of splitting with closure concludes with the mention of these Preludes.

⁶⁹Ведь если суммирование дает естественную возможность движения от коротких метроритмических импульсов к более цельной линии, то дробление представляет обратную возможность. А эта возможность развития, направленного к подчеркиванию ритмического момента (т.е. коротких сходных импульсов), весьма существенна для танца. Особенно распространена структура дробления в вальсах: начальное цельное построение, за которым как бы по инерции следуют короткие мотивы, благоприятствует выявлению скользящей легкости танца... Столь же распространена структура дробления в польках и мазурках...

⁷⁰"§6. Дробление с замыканием"

The most important element of the structure of splitting with closure, in Mazel's view, is the summation which concludes the structure, that is, closes it. Mazel' therefore begins the section with a discussion of summation and those of its properties that are made the greatest use of in splitting with closure.

...if the authentic cadence can serve as the "starting point" ("the impulse of motion"), as well as the close of motion, then by analogy the structure of summation can also be a form of initial presentation of a musical thought (in all its different dimensions), as well as a form of its conclusion—in itself a type of *structural* (or *syntactic*) *cadence*... In as much as the syntactic cadence is rendered, in that way, one of the important means of concluding a thought, summation—in the role of such a cadence—can follow a structure that has any number of different designs and dimensions. Thus, it not infrequently appears after a flowing four-bar phrase and gives the resulting whole a high degree of structural completion. As a result, a structure with dimensional relationships of the type, for instance, 4 + 1 + 1 + 2—where the opening structure and the "cadence" are of equal length—is formed. (p. 451-2) ⁷¹

Mazel' cites an example from the repertoire with those exact dimensions of thematic structure. It is the opening theme of the third movement from Beethoven's *Sonata for Piano No. 4 in E b Major (Op. 7)*.

⁷¹...если автентический оборот способен служить и «начальным толчком» («импульсом движения»), и замыканием движения, то аналогичным образом структура суммирования тоже может быть и формой начального изложения музыкальной мысли (в самых различных ее масштабах), и формой ее завершения—своего рода структурным (или синтаксическим), кадансом... Поскольку синтаксический каданс оказывается, таким образом, одним из важных средств завершения мысли, суммирование—в роли такого каданса—может следовать за построением любой, самой разнообразной структуры и различных масштабов. Так, оно нередко появляется за слитным четырехтактом и придает возникающему целому большую степень структурной законченности. В результате образуются построения с масштабными соотношениями, например, типа 4 + 1 + 1 + 2, где начальное построение и «каданс» равнодлительны.

Example 19: L. van Beethoven, *Sonata for Piano No. 4 in Eb Major (Op. 7), III*



Commenting on the last four bars of this example, Mazel' writes

the splitting (one-bar phrases) is followed by a two-bar phrase that sums the one-bar phrases and at the same time *closes off* the whole eight bars (without the last two bars the structure would represent a splitting formation, lacking to a high degree in, as was already pointed out, wholeness and completion): on that is based the described structure that is called *splitting with closure*. (p. 452) ⁷²

Thus with the help of the Beethoven theme, Mazel' defines the dimensions of thematic structure that he calls splitting with closure. The main thing to be noted is that two structures of equal dimensions are involved, the second one being a summation of which the opening periodicity forms a splitting structure with the first half of the whole. Mazel' considers a variation on such a structure to be particularly common.

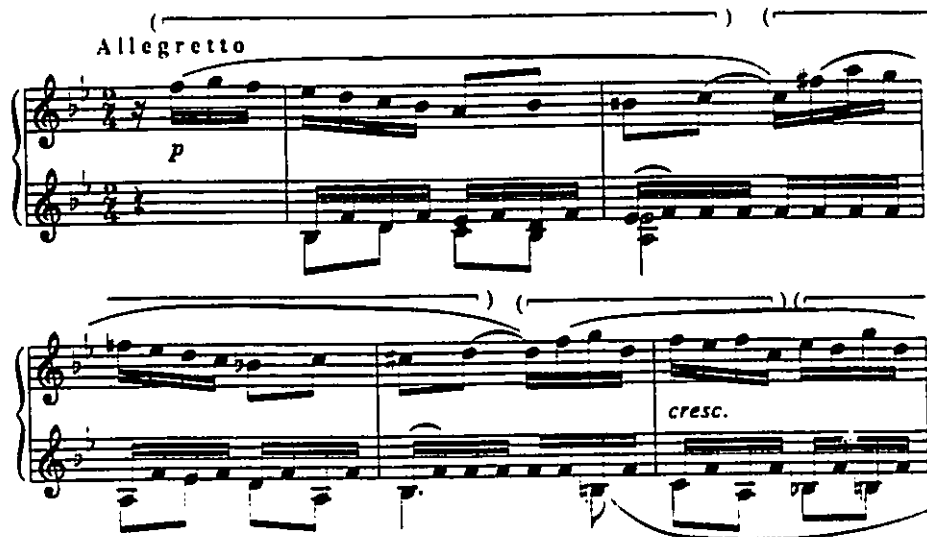
Incomparably more frequent, however, than the just examined type of splitting with closure, is another type in which the opening half is not a whole structure (for instance, a four-bar phrase), but a *periodicity* (for instance, 2+2). That yields dimensional relationships of 2+2+1+1+2 (or correspondingly 4+4+2+2+4, $1+1+\frac{1}{2}+\frac{1}{2}+1$, etc.). Similar relationships

⁷²за дроблением (однотакты) следует двутакт, суммирующий однотакты и вместе с тем закрывающий весь восьмитакт (без последнего двутакта построение представляло бы структуру дробления, не обладающую, как уже сказано, большой степенью цельности и завершенности): на этом основании описанная структура называется дробление с замыканием.

represent in themselves the most frequent, so to speak, *classical* type of splitting with closure. (p. 453) ⁷³

Among the examples Mazel' cites of such dimensions of thematic structure is the eight-bar theme from the *Rondo finale* of Beethoven's *Sonata for Piano No. 11, in Bb Major (Op. 22)*.

Example 20: L. van Beethoven, *Sonata for Piano No. 11 in Bb Major (Op. 22), IV*



⁷³Несравненно чаще, однако, чем только что рассмотренный вид дробления с замыканием, встречается другой, при котором первая половина представляет собой не цельное построение (например, чetyрехтакт), а периодичность (например, 2 + 2). Это дает масштабные соотношения 2 + 2 + 1 + 1 + 2, 1 + 1 + $\frac{1}{2}$ + $\frac{1}{2}$ + 1 и т. п.). Подобные соотношения представляют собой наиболее распространенный, так сказать, классический вид дробления с замыканием.



This theme is based on a dimensional thematic structure that Mazel' calls *classical* splitting with closure: $2 + 2 + 1 + 1 + 2$. The dual nature of this structure—i.e. possibility of being perceived as either a summation or as a splitting with closure—is also evident in this theme.

Periodicity to a large extent requires the response to be a non-periodic structure. If the latter happens to be continuous, then the whole results in a common type of *summation* (for example, $2 + 2 + 4$); but if the response is itself a structure of summation ($1 + 1 + 2$ —in the role of a structural cadence), then the whole results in a classical type of splitting with closure ($2 + 2 + 1 + 1 + 2$). This type [of splitting with closure] could by the same token be viewed as a *particularization* of, or as a *special sort of summation*—namely as a *summation in which the summed part in turn represents a structure of summation*. (p. 454) ⁷⁴

The opening periodicity (i.e. $2 + 2$) of the Beethoven theme is answered by a $1 + 1 + 2$

⁷⁴Периодичность же в значительной мере требует отвечающего ей непериодического построения. Если это последнее будет единым, то в целом возникнет обычный вид суммирования (например, $2 + 2 + 4$), если же отвечающее построение само представляет собой структуру суммирования ($1 + 1 + 2$ —в роли структурного каданса), то в целом образуется классический вид дробления с замыканием ($2 + 2 + 1 + 1 + 2$). Этот вид [дробления с замыканием] можно, таким образом, рассматривать также как детализацию или особую разновидность суммирования—именно как такое суммирование, в котором суммирующая часть, в свою очередь, представляет структуру суммирования.

structure that Mazel' calls a "structural" or "syntactic cadence." The continuous sixteenth note four-bar phrase concluding the theme makes up this "syntactic cadence." This concluding four-bar phrase can also be viewed as dimensionally uniform (i.e. 4), in which case the resulting structure of the whole is $2+2+4$ (i.e. summation) instead of $2+2+1+1+2$ (i.e. *classical* splitting with closure). The dimensions of thematic structure of the Beethoven theme lend themselves readily to being interpreted both ways, clearly illustrating the ambiguity inherent in a *classical* splitting with closure. Mazel' accordingly states that

"Such a type of splitting with closure could be designated not as $2+2+1+1+2$, but rather as $2+2+\frac{4}{1+1+2}\dots$ " (p. 454) ⁷⁵

Having examined splitting with closure, with an emphasis on its most common manifestation—the *classical* splitting with closure—Mazel' goes on to discuss the main potentials of the structure.

The structure of splitting with closure possesses extremely rich possibilities. On the one hand, it, as is evident from the afore said, is close to summation: it directly contains the structure of summation in its second half (the moment of splitting, itself, plus the final closure), beside which the whole second (non-periodic) half in a more general way sums (unifies) the opening similar structures. †⁰ On the other hand, the structure of splitting with closure, in contrast to summation alone, includes a moment of splitting—dimensional compression, quickening of breath—and that determines such possibilities as summation in an every day (narrow) sense lacks. Essentially, the structure of splitting with closure combines many aspects of structures of summation and splitting, with the characteristics of summation being uppermost. Specifically, splitting with closure

⁷⁵"Такой вид дробления с замыканием можно было бы обозначить не $2+2+1+1+2$, а, например, $2+2+\frac{4}{1+1+2}\dots$ "

⁰Mazel' is assuming a *classical* splitting with closure in which the opening half is a periodicity and not a single whole.

is characterized by greater completeness and closure than is summation, and belongs among the few most universal structures. (p. 455) ⁷⁶

Mazel' attributes this universality of splitting with closure to its very nature, it being in his view the embodiment of the logic of structural development in music. He shares this view with Boris Asafiev who considered the *aaba* form (a *classical* splitting with closure) to be the most basic generator of musical structures. ⁷⁷ Mazel' actually identifies four distinct stages of musical development that are directly reflected in the dimensions of thematic structure of splitting with closure.

...in the structure of splitting with closure, the basic stages in the logical development of musical thought are usually very clear—stages which have more general significance and are also realized in far greater dimensions, right up to those of large musical forms... These stages are the following:

1. The initial statement of the main idea (the main seed). Applied to the common type of splitting with closure it is *the opening structure* (for example, a two-bar phrase of a 2+2+1+1+2 structure).
2. *Confirmation, consolidation of the idea* (seed) in the listener's consciousness, possibly with some development (exact or modified repetition of the idea, seed in the given example of a two-bar phrase).
3. *Development proper* (in the given case of the moment of splitting, one-bar phrases).
4. *Conclusion* (in

⁷⁶Структура дробления с замыканием обладает чрезвычайно богатыми возможностями. С одной стороны, она, как видно из сказанного, близка суммированию: она непосредственно содержит структуру суммирования во второй своей половине (самый момент дробления плюс последующее замыкание), а кроме того, вся вторая (непериодическая) половина в некотором более общем смысле суммирует (объединяет) начальные сходные построения. С другой же стороны, структура дробления с замыканием включает, в отличие от собственно суммирования, также и момент дробления, сжатия масштабов, учащения дыхания, а это определяет такие возможности, каких лишено суммирование в обычном (тесном) смысле. В сущности структура дробления с замыканием сочетает многие свойства структур суммирования и дробления при ведущей роли свойств структуры суммирования. В частности, дробление с замыканием отличается столь же большой завершенностью, замкнутостью, как суммирование, и принадлежит к числу структур наиболее универсальных.

⁷⁷Mazel', L.A., and Tsukkerman, V.A. *Analiz muzikal'nikh proizvedeniy* [Analysis of Musical Works]. (Moscow: Muzyka, 1967), 459 n.2.

the given case, closure following splitting). (p. 457-8) ⁷⁸

Mazel' ascribes particular significance to the third stage in this four-stage process of musical development.

The third quarter of the form has very great significance. In it is found the point of the golden section; the whole third quarter should be considered as "a zone of the golden section;" the *culmination* of a structure or of a complete form is often placed there... Not infrequently are *alterations* of every sort associated with development found in the third quarter of a structure. (p. 458) ⁷⁹

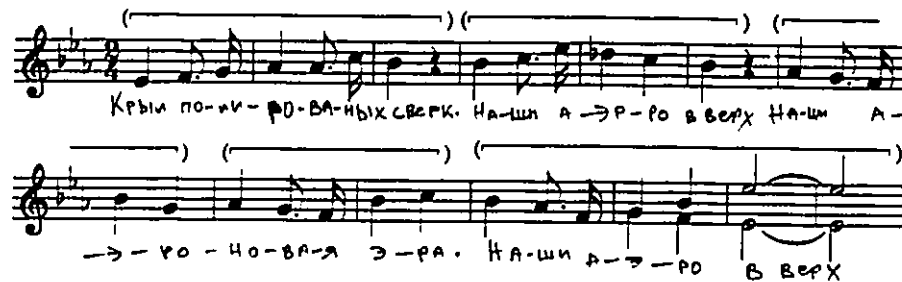
Following this discussion of the structural characteristics of the basic and the "classical" types of splitting with closure, Mazel' proceeds to a consideration of other types of splitting with closure. All the ones considered so far were, in Mazel's terminology, "quadratic"—i.e. consisting of two halves that are dimensionally equal, the dimensions representing values that are multiples of two. Mazel' directs his consideration to non-quadratic splittings with closure in which the dimensions of either the first or the second half, or the moment of splitting, are modified in such a way as to disturb the quadratic equality but still maintain the overall structure of a splitting with closure. Thus, he cites an example of a theme in which the opening half is a non-quadratic periodicity (dimensions 3 + 3) that is contrasted by a quadratic second

⁷⁸...при структур дробления с замыканием обычно очень ясны основные этапы логического развертывания музыкальной мысли—этапы, имеющие более общее значение и реализующиеся также в гораздо больших масштабах, вплоть до масштабов крупных музыкальных форм... Этапы эти следующие: 1. Начальное изложение основной мысли (основного зерна). Применительно к обычному виду дробления с замыканием это начальное построение (например, двутакт при структуре 2 + 2 + 1 + 1 + 2). 2. Подтверждение, закрепление мысли (зерна) в сознании слушателя с возможным некоторым развитием (точное или видоизмененное повторение мысли, зерна, в данном случае двутакта). 3. Собственно развитие (разработка, в данном случае момент дробления, однотакты). 4. Завершение (в данном случае замыкание после дробления).

⁷⁹Значение третьей четверти формы весьма велико. В ней находится точка золотого сечения; вся же третья четверть должна рассматриваться как «зона золотого сечения»; здесь часто расположена кульминация построения или цельной формы... В третьей четверти построения нередко встречаются всякого рода изменения, связанные с развитием.

half (dimensions $2 + 2 + 4$)—the overall structure resulting in $3 + 3 + 2 + 2 + 4$. The example is a theme taken from a patriotic song by Nikolai Yakovlevich Miaskovsky, entitled “Soviet Wings.” The song’s obvious intent is to inspire the Soviet aeroplane industry.⁸⁰

Example 21: N.Y. Miaskovsky, “Soviet Wings”



Another example illustrates a splitting with closure in which the opening periodicity is quadratic (dimensions $2 + 2$), followed by a non-quadratic summation (dimensions $1 + 1 + 3$), resulting in a $2 + 2 + 1 + 1 + 3$ structure. This example is theme two of the second movement of Beethoven’s *Symphony No. 5* (Op. 67).

Example 22: L. van Beethoven, *Symphony No. 5 in C Minor*
(Op. 67), II



⁸⁰The words approximately read: “Wings glitteringly polished, // Our planes surge upwards. // In our aero era, // Our planes surge upwards!”



Yet another example illustrates a non-quadratic modification of the moment of splitting (dimensions $1 + 1 + 1$) to yield a $2 + 2 + 1 + 1 + 1 + 2$ structure. This example is the subject of Shostakovich's *Fugue in F# Minor* from *24 Preludes and Fugues* (Op. 87).

Example 23: D. Shostakovich, *Fugue in F# Minor* from *24 Preludes and Fugues* (Op. 87)



Beside these non-quadratic modifications of the basic structure of splitting with closure, Mazel' discusses an interesting structure that he names "centered splitting."

One also comes across a wholly different type of non-quadratic splitting

with closure, one in which the first part is not a periodicity but a uniform structure. . . One has in mind, for instance, a $2 + 1 + 1 + 2$ structure that could be called “centered splitting” . . . Such a structure combines certain aspects of symmetry. However, it is less dynamic, for the structure preceding the splitting lacks consolidating repetition. (p. 465) ⁸¹

This type of splitting with closure is different from the basic one in that it does not have two equal halves. Rather, its first part is a phrase that is dimensionally equal to the last phrase of the whole, resulting in a structure that is “centered” around the moment of splitting. Mazel’ does not directly cite any examples, but points the reader to various themes in the repertoire that have such dimensions of thematic structure. One of these is the first period of the *finale* of Haydn’s *Sonata for Piano in C Major* (*Hob. XVI: 48*), in which both the antecedent and the consequent have a centered splitting structure of $2 + 1 + 1 + 2$.

Example 24: F.J. Haydn, *Sonata for Piano in C Major*
(*Hob. XVI: 48*)



⁸¹Встречаются и совсем иные случаи неквадратного дробления с замыканием—такие, в которых первая часть представляет собой не периодичность, а цельное построение. . . Имеется в виду, например, структура $2 + 1 + 1 + 2$, которую можно назвать «дробление в центре». . . Эта структура сочетает некоторые свойства симметрии. Она, однако, менее динамична, ибо перед дроблением отсутствует закрепляющее повторение начального построения.



The last type of splitting with closure that Mazel' presents is progressive splitting with closure. In Sections Four and Five progressive summation and splitting (respectively) were discussed. Like those structures, progressive splitting with closure generates succeeding phrases by applying "progressively" a dimensional-thematic principle.

The principle of these structures is one and the same as that of the so far considered simple (single†⁰) splittings with closure, except that it is carried one or more steps further. In simple splitting with closure, the second half is a summation. But in double splitting with closure, the second half of the structure itself represents a simple splitting with closure; or, in other words, that "last quarter" of the structure that in a simple splitting with closure is an indivisible whole (the closure), is rendered a structure of summation in double splitting. For the role of closure, in double splitting with closure (of quadratic structures), only "the last eight" of the whole is made use of. The classical proportions in a double splitting with closure are the following:

4 + 4	+	2 + 2	+	1 + 1	+	2
Opening		First		Second		Closure
Periodicity		Splitting		Splitting		

The main difference from the simple splitting with closure consists in the presence of *progressive* splitting, *progressive* compression, which intensifies

⁰Single as opposed to the progressive double, triple, etc., splittings with closure.

the effect of simple splitting with closure, and possesses added dynamic possibilities. (p. 465-6) ⁸²

As an example of a double splitting with closure, having the exact dimensions of thematic structure mentioned, Mazel' cites the opening twelve bars of Scriabin's *Prelude No. 8 in F# Minor (Op. 11)*.

Example 25: A. Scriabin, *Prelude No. 8 in F# Minor (Op. 11)*



⁸²Принцип этих структур тот же, что и в рассмотренном простом (однократном) дроблении с замыканием, но он проводится одной или несколькими ступенями дальше. В обычном дроблении с замыканием вторая половина построения представляет собой суммирование. При двойном же дроблении с замыканием вторая половина построения сама является простым дроблением с замыканием или—ными словами—та «последняя четверть» построения, которая при обычном дроблении с замыканием представляет собой нерасчленимое целое (замыкание), оказывается при двойном дроблении структурой суммирования. Замыканием же служит при двойном дроблении с замыканием (в квадратных структурах) лишь «последняя восьмая» построения. Классические пропорции в структуре двойного дробления с замыканием следующие:

4 + 4	+	2 + 2	+	1 + 1	+	2
начальная		первое		второе		замыкание
периодичность		дробление		дробление		

Главное отличие от обычного дробления с замыканием заключается именно в наличии прогрессирующего дробления, прогрессирующего сжатия, что усиливает эффект обычного дробления и обладает дополнительными динамическими возможностями.



The two four-bar phrases of the opening periodicity each have a structure of summation of 1 + 1 + 2 that, however, is not so pronounced because of the *Allegro agitato* tempo, and the melodic shape that unifies each phrase.

By far the most fascinating dimensions of thematic structure discussed in this section are the triple and quadruple splittings with closure. Their presentation concludes the section, with Mazel' treating these structures as rarities or as addenda.

Triple, and even more so quadruple, splitting with closure is, by nature, very rare. On the one hand, in these structures, the closure is, as a rule, very small by comparison with the string of diminishing periodicities, and can not be counterbalancing (for instance, in a thirty-two bar structure with a quadruple splitting with closure formation, the diminishing groups of periodicities comprise 31 bars, to which a single bar serves as a closure). On the other hand, in manifold splitting (as in, for instance, manifold sequencing) there can appear elements of a certain inertia and repetitiveness. Sometimes in manifold splitting with closure, the closing structure broadens out so that it can fulfil its function to a greater degree.

(p. 468) ⁸³

⁸³Тройное же, а тем более четверное дробление встречается, естественно, много реже. В этих структурах, с одной стороны, как правило, замыкание слишком мало по сравнению с рядом уменьшающихся периодичностей и не может ему противостоять (например, в тридцатидвухтактном построении структуры четверного дробления с замыканием нисходящей группы периодичностей, занимающей 31 такт, отвечает однитактное замыкание). С другой же стороны, при многократном дроблении (как и, например, при многократном секвенцировании) могут появиться черты некоторой инертности, автоматичности. Иногда при многократном дроблении с замыканием замыкающее построение расширяется, дабы оно в большей степени могло выполнить свою функцию.

In the two examples Mazel' mentions of triple and quadruple splitting with closure, both contain such broadened out, conclusive structures. Neither of the examples is actually cited, but Mazel' does give their dimensions of thematic structure. Chopin's *Prelude No. 18 in F Minor (Op. 28)* is pointed out as an example of a triple splitting with closure, the closure being broadened. What is particularly fascinating about this example is that the whole Prelude is based on the structure of triple splitting with closure. Its dimensions of thematic structure are the following:

$$\frac{1+1+2}{4} + \frac{1+1+2}{4} + \frac{1+1}{2} + \frac{1+1}{2} + 1 + 1 + \frac{1}{2} + \frac{1}{2} + 2 + 4 \text{—broadening. }^{84}$$

The entire Prelude is cited in Appendix I.

Scriabin's *Prelude in G# Minor (Op. 16, No.2)* is mentioned by Mazel' as an example of quadruple splitting with closure. Like the Chopin Prelude, it is also entirely composed around a progressive splitting with closure, in this case quadruple splitting with closure. The dimensions of thematic structure of the Skriabin Prelude are

$$\frac{8}{2,2,1,1,2} + \frac{8}{2,2,1,1,2} + 4 + 4 + 1 + 1 + \frac{1}{2} + \frac{1}{2} + 1 + 6 \text{—broadening.}$$

The whole Prelude is cited in Appendix II.

⁸⁴In the printed thematic dimensions in *Analysis of Musical Works (1967)*, p. 468, the broadening is assigned 5 measures, which is either Mazel's mistake or his printer's, as that thematic dimension would make the entire Prelude twenty two bars long, exceeding its actual length by a whole bar.

“SECTION SEVEN: Several other structures”⁸⁵

In this section Mazel' discusses two types of structures that he associates with structural symmetry. He accordingly calls these structures half-symmetry (or “chain structure” and “advancing structure”) and full symmetry (or just symmetry). He argues for what he regards to be the folk origins of symmetrical formations in music, closing off the section with a brief mention of structures that can be generated by symmetrical orderings of summation, splitting, and progressive summation. These last types of structures he refers to as mixed.

Mazel' describes in the following way the type of structure he calls half-symmetry.

Effectively, the structure abb_1c is often found in *initial statements* of a theme, as for instance in the first phrase of a period with a repeated structure. Development in this structure is based on the second half taking off from the element with which the first concluded, and only then “advancing” further to the new element...In accordance with the afore said, the described structure can be called a *chain* structure or *advancing* structure (and the general principle—advancing principle). (p. 470–1)⁸⁶

Among the examples Mazel' cites of themes governed by such “advancing principles,” is the *Andante mosso* theme from Tchaikovsky's *Symphony No. 5* (*Op. 64*).

⁸⁵“§7. Некоторые другие структуры”

⁸⁶Действительно, структура abb_1c нередко встречается в начальном изложении темы, например в первом предложении периода повторного строения. Развитие в этой структуре основано на том, что вторая половина как бы отталкивается от того элемента (или «зацепляется» за тот элемент), каким закончилась первая, и лишь затем «продвигается» дальше, давая новый элемент...Описываемую структуру можно в соответствии со сказанным назвать цепочной структурой или структурой продвижения (а общий принцип—принципом продвижения).

Example 26: P.I. Tchaikovsky, *Symphony No. 5 (Op. 64), II*



Mazel's reasoning in calling the abb_1c thematic structure a half-symmetry is the following.

Since one of the strongest means of concluding a structure is recapitulatory return of the initial element, element c often has certain kinship with element a , and can be viewed as a free "response" to it... However, it is understandable that full symmetry abb_1a_1 possesses, under other similar circumstances, greater sense of closure and completeness. In connection with this, it is appropriate to refer to the advancing structure abb_1c (if one has in mind possibilities of development and its concluding result) as *half-symmetry*. (p. 473) ⁸⁷

Mazel' relates the structures he calls half-symmetry (i.e. abb_1c) and symmetry (i.e. abb_1a_1) by illustrating their function in the opening period of Mozart's *Rondo in A Minor (K. 511)*.

⁸⁷Поскольку одним из сильнейших средства завершения структуры является репризное возвращение начального элемента, элемент (с) иногда имеет некоторое родство с элементом (а) и может рассматриваться как свободный «ответ» на него... Понятно, однако, что полная симметрия abb_1a_1 обладает, при прочих равных условиях, еще большей замкнутостью, заверщенностью. В связи со сказанным структура продвижения (abb_1c) естественно назвать (если иметь в виду не способ развития, а его законченный результат) также полусимметрией.

Example 27: W.A. Mozart, *Rondo in A Minor* (K. 511)

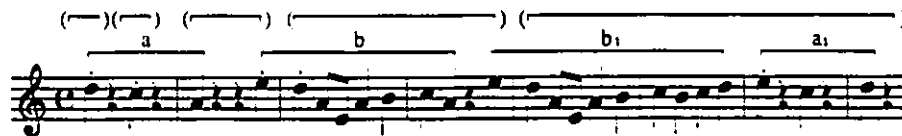
In the same way that half-symmetry can serve as a response to a less complete structure of splitting, so symmetry can by analogy, as one among a number of more complete structures, serve as a response to a half-symmetry. For instance, in the opening eight-bar period of Mozart's *Rondo in A Minor*, the opening phrase concludes with a half-cadence and represents a structure of a *half-symmetry* ($abb_1c...$), and the second one ends with a full-cadence and has a structure of a *full-symmetry* ($abb_1a_1...$). In other words, the harmonic relationship of the phrases is supported here by the corresponding structural relationships. (p. 472) ⁸⁸

⁸⁸Подобно тому, как полусимметрия может служить завершающим ответом на менее замкнутую структуру дробления, так и симметрия может аналогичным образом, в качестве еще более замкнутой структуры, отвечать на полусимметрию. Например, в начальном восьмитактном периоде ля-минорного рондо Моцарта первое предложение заканчивается половинным кадансом и представляет структуру полусимметрии ($abb_1c...$), а второе заканчивается полным кадансом и имеет структуру полной симметрии ($abb_1a_1...$). Иными словами, гармоническое соотношение предложений поддержано здесь соответственными структурными соотношениями.

This example supports Mazel's understanding of dimensions of thematic structures in a clear way. While at times the structures he defines might seem contrived (as for instance, the progressive summation, or progressive splitting with closure) if they are supported by other aspects of the music, their justification is that much stronger.

The example of the opening theme from Dimitri Borisovich Kabalevsky's *Sonatina* (*Op. 13, No. 1*) cited by Mazel' is noteworthy in this respect. It illustrates the support of the dimensions of thematic structure by the underlying motivic connections in the music: the structure of symmetry (abb_1a_1) is embedded within a progressive summation ($\frac{1}{2} + \frac{1}{2} + 1 + 2 + 4$).

Example 28: C.B. Kabalevsky, *Sonatina* (*Op. 13, No. 1*)



Let us note that [here] the *motivic-thematic* symmetry combines with *dimensional* summation, for elements *a* and *b* are stated separately in the first half, and together in the second one. (p. 473) ⁸⁹

The reason the two elements sound “separate” and then “together” is because of their motivic structure. Element *a* is staccato and element *b* is more flowing, producing the effect of separation in the *ab* succession, and unity in the *ba* one.

An interesting reference is made to symmetrical phenomena in architecture and music, and to our perception of each. Mazel' links the frequency of occurrence of musical symmetry to this.

⁸⁹Заметим, что [здесь] мотивно-тематическая симметрия сочетается с масштабным суммированием, ибо элементы *a* и *b* даны в первой половине построения раздельно, а во второй слитно.

If “right” and “left” directions in space are equal in principle, and therefore symmetry in architecture (as well as in design) is completely ordinary, by no means are the “preceding” and the “following” in time equal; therefore the change of order in succession of two elements (especially so immediately after their initial statement) produces a special, particular, somewhat odd effect. . . Also, it is understandable that symmetrical structure is found far less frequently than periodic repetition of two elements *abab*. (p. 473) ⁹⁰

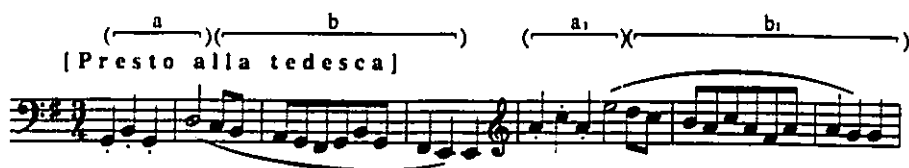
To support this argument, Mazel' cites two different statements of a theme from the first Movement (*Presto alla tedesca*) of Beethoven's *Sonata for Piano No. 25 in G Major (Op. 79)*.

Example 29a: L. van Beethoven, *Sonata for Piano No. 25 in G Major (Op. 79)*, I, Exposition



⁹⁰Если «левая» и «правая» стороны в пространстве в принципе равноправны и поэтому симметрия в архитектуре (как и в орнаменте) вполне обычна, то «предыдущее» и «последующее» во времени отнюдь не равноправны и поэтому изменение порядка следования двух элементов (особенно сразу же после их первоначального изложения) производит особый, специфический, несколько необычный эффект. . . Понятно также, что симметричная структура встречается несравненно реже, чем периодическая повторность двух элементов *abab*.

Example 29b: L. van Beethove, *Sonata for Piano No. 25 in G Major* (Op. 79), I, Coda



In the first statement, the theme is structured around a symmetry, while in the second, it is structured around a periodicity. Mazel' states that

To directly feel the difference between these structures (in part, the more common character of periodicity and the somewhat odd character of symmetry), it is enough to compare the symmetrical theme by Beethoven... with its periodic variant stated in the Coda of the Presto. (p. 473) ⁹¹

Like the theme of the Kabalevsky *Sonatina*, this Beethoven theme has an *a* motive that is staccato, and a *b* one that is flowing. The succession of the motives in a structure of symmetry (*abb₁a₁*) places the staccato motives on the outside of the theme, and the flowing ones in the middle. This produces a symmetrically closed sounding structure. In the periodicity of the theme's variant, stated in the Coda, the contrasting motives alternate (*aba₁b₁*), giving the variant a feeling of interruption that emphasizes the periodic structure, a structure that, incidentally, is far simpler than the symmetry. Mazel's reference to the periodicity as "more common," and the symmetry as "somewhat odd," really refers to our perception of the structures of periodicity and symmetry: periodicity is simple and straightforward, while symmetry is more elaborate and complex.

⁹¹Чтобы непосредственное ощутить различие этих структур (в частности, более обычный характер периодичности и несколько необычный характер симметрии), достаточно сравнить симметричную тему Бетховена... с периодичным ее вариантом, звучащим в коде того же Presto.

Mazel' regards the origins of symmetry, like those of many musical phenomena he discusses, as being traceable to folk music.

Symmetry has deep roots in the folk art of music. . . Admittedly, in Russian folk music freely interpreted intonational or rhythmic symmetry is incomparably more frequent than the one discussed in this section—the strict symmetry that is motivically and thematically consistent, and produces an abb_1a_1 structure. . . However, in Hungarian folk music, for instance, clearly expressed structures of symmetry are far more characteristic. (p. 473–4) ⁹²

A Hungarian song from a *Collection of Folk Songs* by Bartok and Kodaly is cited, illustrating the structure of strict symmetry.

Example 30: Hungarian folk song from *Collection of Folk Songs*
by Bartok and Kodaly



To conclude this section Mazel' presents several structures that are the result of symmetrical combinations of basic dimensions of thematic structure presented earlier (i.e. of summation, of splitting, of progressive summation, and of periodicity).

⁹²Симметрия имеет глубокие корни в народном музыкальном искусстве. . . Правда, в русской народной музыке несравненно чаще встречается свободно трактуемая интонационная или ритмическая симметрия, нежели описываемая в этом параграфе строго выдержанная мотивно-тематическая симметрия, дающая структуру abb_1a_1 . . . Однако, на пример, для венгерской народной музыки ясно выраженная структура симметрии в высшей степени характерна.

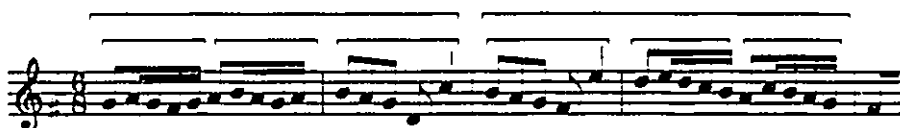
...in the domain of dimensions of thematic structures, symmetry can find many expressions, principally in such structures which are appropriately called *mixed*, i.e. combining the different basic types of structures already discussed. (p. 474) ⁹³

The first of such "mixed" structures Mazel' mentions is a summation followed by a splitting.

...a structure of summation (for instance, $\frac{1}{2} + \frac{1}{2} + 1$) can be followed by a structure of splitting ($1 + \frac{1}{2} + \frac{1}{2}$), thus forming a mixed structure in which the whole results in dimensional symmetry ($\frac{1}{2} + \frac{1}{2} + 1 + 1 + \frac{1}{2} + \frac{1}{2}$) that is sometimes supported by motivic and thematic symmetry... (p. 474) ⁹⁴

The reader is directed to the subject of J.S. Bach's *Fugue in G Major, No. 15* of the second book of *The Well-tempered Clavier*; this subject is based on the exact symmetrical dimensions mentioned above.

Example 31: J.S. Bach, *Fugue in G Major, WTC II, 15*
(BWV 884)



The motivic symmetry here is clearly reflected in the dimensional symmetry.

Another "mixed" structure Mazel' mentions is in a sense a structural inversion of the previous one.

⁹³... в области масштабно-тематических структур симметрия может находить всевозможные выражения, главным образом в таких структурах, которые естественно называть смешанными, т.е. сопоставляющими различные из рассмотренных основных типов структуры.

⁹⁴ за структурой суммирования (например, $\frac{1}{2} + \frac{1}{2} + 1$) может следовать структура дробления ($1 + \frac{1}{2} + \frac{1}{2}$), и тогда в образующейся смешанной структуре целого возникает масштабная симметрия ($\frac{1}{2} + \frac{1}{2} + 1 + 1 + \frac{1}{2} + \frac{1}{2}$), иногда поддерживаемая симметрией мотивно-тематической...

On the other hand, a structure of splitting (2+1+1) is far more frequently followed by a summation (1 + 1 + 2), that besides, as a whole, yields dimensional symmetry: 2 + 1 + 1 + 1 + 1 + 2. In the first eight bars of Chopin's *Mazurka* (*Op. 59, No. 3*)...that structure is connected with a *six-fold* repetition (in the form of a free sequence) of a single motive $\overset{ab}{2} + \overset{b}{1} + \overset{b}{1} + \overset{b}{1} + \overset{b}{1} + \overset{bc}{2}$, which produces considerable and agitated development. (p. 474) ⁹⁵

Example 32: F. Chopin, *Mazurka* (*Op. 59, No. 3*)



Like Bach's subject of the *G Major Fugue*, this Chopin theme contains close motivic and dimensional interaction, the theme's motivic structure being mirrored by its dimensional structure.

The last "mixed" structure Mazel' mentions can more correctly be considered as symmetrical than mixed. It combines a progressive summation with a periodicity, where both structures are equal in dimension and together form two halves of a single mixed structure. Mazel' writes

⁹⁵Много чаще, наоборот, за структурой дробления (2 + 1 + 1) следует суммирование (1 + 1 + 2), что в целом дает опять-таки масштабную симметрию: 2 + 1 + 1 + 1 + 1 + 2. В первом восьмизакте мазурки Шопена оп. 59 № 3...эта структура связана с шестикратным повторением (в форме свободной секвенции) одного мотива $\overset{ab}{2} + \overset{b}{1} + \overset{b}{1} + \overset{b}{1} + \overset{b}{1} + \overset{bc}{2}$, что дает большое и взволнованное развитие.

From among other mixed structures, let us name those based on the principle of consolidation of dimensions, for instance... $\frac{1}{2} + \frac{1}{2} + 1 + 2 + 2 + 2$ (Chopin, *Prelude No. 3*, opening). (p. 474-5) ⁹⁶

Example 33: F. Chopin, *Prelude No. 3 in G Major (Op. 28)*



In the opening theme of the Chopin *Prelude No. 3 in G Major (Op. 28)*, the beginning progressive summation reaches a two-bar sum that is “consolidated,” in Mazel’s words, by a periodicity of two two-bar phrases. As a whole, the overall dimensions of thematic structure here do not exhibit symmetry. Mazel’s mention of this *Prelude* is intended to provide an example of possible “mixed” structures that can result from various orderings of basic dimensions of thematic structure.

“SECTION EIGHT: Some general remarks and additions. Historical formation and development of basic dimensions of thematic structure” ⁹⁷

In the concluding Section of the Chapter on dimensions of thematic structure, Mazel’ takes a broader view of the whole topic under investigation. He states that

⁹⁶Из других смешанных структур назовем структуры, основанные на принципе закрепления достигнутого масштаба, например... $\frac{1}{2} + \frac{1}{2} + 1 + 2 + 2 + 2$ (Шопен. Прелюдия № 3, начало).

⁹⁷§8. Некоторые обобщения и дополнения. Историческое формирование и развитие основных масштабно-тематических структур”

The various structures described in the preceding sections permit a more general classification that reduces the diversity of examined structures to a very few basic types. (p. 475) ⁹⁸

The way Mazel' goes about presenting such a more general classification is to identify two basic tendencies that govern motivic and dimensional structures. Consideration of the two basic tendencies allows him to posit a general classification of dimensions of thematic structures. In addition to this, he briefly considers criteria for establishing similarity between adjacent structures—something that is vital to his general classification. He concludes the section by considering the historical context of dimensions of thematic structures.

The two basic tendencies governing thematic structures that Mazel' identifies, are periodicity and its opposite—non-periodicity, or the overcoming of periodicity. He states that

in the realm of motivic and dimensional structure of a homophonic theme, certain very general inner principles are operative—principles based on the combination and interaction of two contrary tendencies... *the tendency for periodicity* is one of the basic structural tendencies of a homophonic melody, theme... side by side with the tendency for periodicity, inherent to homophonic thematicism, exists also the opposite tendency *for overcoming periodicity*. (p. 475–6) ⁹⁹

A note on Mazel's reference to a homophonic theme (as opposed to polyphonic, or any other type of theme) is necessary. Mazel's conceptions of dimensions of thematic

⁹⁸Описанные в предыдущих параграфах разнообразные структуры допускают и более общую классификацию, сводящую все многообразие рассмотренных структур к весьма немногим основным типам.

⁹⁹В области мотивной и масштабной структуры гомофонной темы действует некоторая весьма общая внутренняя закономерность, основанная на сочетании и взаимодействии двух противоположных тенденций... тенденция к периодичности—одна из основных тенденций структуры гомофонной мелодии, темы... Наряду с тенденцией к периодичности, гомофонному тематизму присуща и противоположная тенденция—к преодолению периодичности.

structures are largely based on music in which there is a single theme or melody with accompaniment. Occasionally he extends his conceptions to include for instance, subjects of fugues (see Examples 6, 23, and 31); but in those cases he treats such themes as homophonic ones, not considering their contrapuntal possibilities—in a sense, taking those themes out of their contrapuntal contexts to use them to illustrate dimensions of thematic structures inherent to homophonic themes.

Having identified the two motivic and dimensional tendencies of homophonic themes, Mazel' discusses each one further. About the tendency for periodicity he states that

It represents a diffusion over a longer stretch of a *regular pulse*, regular *meter*, which itself represents a type of periodicity. Meter is closely linked with the temporal aspect of music, with the regulated flow of "musical time," and essentially appears as its unit of measurement. Periodicity is a diffusion of *metric* inertia over the related dimensions of thematic structure. (p. 475-6) ¹⁰⁰

This abstract conception of periodicity is contrasted by a more specific one of the opposite tendency for non-periodicity.

[Non-periodicity] is connected with the tendency for overcoming divisions, for creating whole, flowing, more broadly developed structures. The structure of summation serves as the simplest manifestation of this tendency, for its non-periodic, summed part, as it were, overcomes the established

¹⁰⁰Она представляет собой распространение на
 большее протяжение равномерной пульсации, равномерного метра, который также пред-
 ставляет собой своего рода периодичность. Метр тесно связан с временной природой
 музыки, с упорядоченным течением «музыкального времени» и, в сущности, является
 его измерителем. Периодичность есть распространение метрической инерции на масштабо-
 тематические соотношения.

initial periodicity, the whole being rendered non-periodic, i.e. not consisting of similar parts as a whole. (p. 476) ¹⁰¹

Having identified the two basic tendencies, Mazel' relates them in what he calls a mechanism of structural development.

Both described tendencies are structurally inherent in homophonic thematicism. With that, the tendency for periodicity appears with greater force than that of non-periodicity... The tendency for overcoming periodicity—for greater flow, for completeness, and development—manifests itself with much more directness when it follows a periodic structure. In that way, the effect of both tendencies, in the most typical cases, is factually realized, as it were, by turns; and that defines the very mechanism of structural development of a homophonic theme. (p. 476) ¹⁰²

Mazel' sees this mechanism as most clearly operative in the opening of Scriabin's *Prelude No. 8 in F# Minor (Op. 11)*, discussed in Section Six of this Chapter, where it was used in illustrating a structure of double splitting with closure. ¹⁰³

[That] mechanism can be easily traced through the sixteen bars cited above, in the example [of Scriabin's *Prelude No. 8 in F# Minor (Op. 11)*]. The initial one-bar motive is repeated. A periodic two-bar phrase results, to which a whole, non-periodic two-bar phrase responds. The periodicity

¹⁰¹[Непериодичность] связывается с тенденцией к преодолению расчлененности, к созданию цельных, слитных, более широко развернутых построений. Простейшим проявлением этой тенденции служит структура суммирования, в которой непериодическая суммирующая часть как бы преодолевает установившуюся начальную периодичность и вся структура оказывается непериодической, т.е. не состоит целиком из сходных частей.

¹⁰²Обе описанные тенденции внутренние присущи гомофонному тематизму. При этом тенденция к периодичности сильнее проявляется по отношению к построениям непериодическим... Тенденция же к преодолению периодичности, к большей слитности, цельности, развернутости проявляется сильнее всего непосредственно после периодического построения. Таким образом, в наиболее типичных случаях действие обеих тенденций фактически реализуется как бы поочередно, и это определяет самый механизм развертывания структуры гомофонной темы.

¹⁰³The whole of Example 25 is reprinted here (footnote cont'd on next page).

having been overcome, a non-periodic four-bar phrase is formed. It is repeated and that creates a periodic eight-bar phrase. The periodicity requires overcoming, so the following eight-bar phrase is non-periodic (in its second half there is an *overcoming* of periodicity, for the structure of the eight bars is a splitting with closure). As a result, a non-periodic sixteen-bar structure is formed (double splitting with closure), following which the tendency for periodicity again emerges: the repetition of the whole sixteen-bar phrase (second phrase of the period) begins. (p. 477) ¹⁰⁴

The existence of the two contrasting structural tendencies and of the structural mechanism in which they interact, leads Mazel' to suggest a general classification of dimensions of thematic structure.

There are two types of structures—periodic and non-periodic... Thus, we

Example 25: A. Scriabin, *Prelude No. 8 in F# Minor (Op. 11)*



¹⁰⁴[Этот] механизм легко проследить на шестнадцатитакте, приведенном выше в примере [прелиюдий Скрябина, оп. 11 № 8]. Начальный одноклассный мотив повторен. Возник периодический двукласс, ему отвечает двукласс цельный, непериодический. Периодичность преодолена, образуется непериодический четырехтакт. Он повторяется, и это создает периодический восьмитакт. Периодичность требует преодоления, и следующий восьмитакт—непериодичен (в нем самом и во второй его половине есть преодоленная периодичность, ибо структура восьмитакта—дробление с замыканием). В результате уже возник непериодический шестнадцатитакт (двойное дробление с замыканием), а затем опять вступает в свои права тенденция к периодичности: начинается повторение всего шестнадцатитакта (второе предложение периода).

will designate as periodic those structures that are either completely made up of similar parts (periodicity proper, periodicity in a narrow sense), or are made-up in total of several sections, each of which consists completely of similar parts (grouped periodicities or periodicity in a broad sense). We will refer to all other structures as non-periodic. Otherwise, among non-periodic structures belong those that are not wholly made up of similar parts and at the same time, are not made up in total of several sections, each of which consists completely of similar parts. (p. 480) ¹⁰⁵

The main distinction between periodic and non-periodic types of the suggested classification is similarity between parts (in whole or in part) of a structure. Because of this emphasis on similarity, Mazel¹ considers separately the criteria for establishing whether adjacent parts of a thematic structure are similar.

In connection with this, some analysis of the understanding of motivic similarity is necessary. It is possible to conclude that if a melodic structure consists of two rhythmically identical halves in which the *direction of motion* of the melody (up or down) is the same at the corresponding points of those halves, then that structure is *unequivocally periodic*, and its halves are *unequivocally similar*. However, that *sufficient* condition for similarity is not always enough. (p. 484) ¹⁰⁶

¹⁰⁵Есть два типа структур—периодические и непериодические...Итак, периодическими мы назовем построения, либо целиком состоящие из сходных частей (собственно периодичность, периодичность в тесном смысле), либо полностью состоящие из нескольких разделов, каждый из которых целиком состоит из сходных частей (группа периодичностей, периодичность в широком смысле). Все остальные построения назовем непериодическими. Иначе говоря, к непериодическим относятся построения, не состоящие целиком из сходных частей и в то же время не состоящие полностью из нескольких разделов, каждый из которых целиком состоит из сходных частей.

¹⁰⁶В связи с этим необходим некоторый анализ самого понятия мотивной сходимости. Можно утверждать, что если мелодическое построение состоит из двух ритмически тождественных половин, причем направление движения мелодии (вверх или вниз) в ритмически соответственных точках этих половин одинаково, то построение безусловно периодически, а его половины безусловно сходны. Однако это достаточно условие сходимости не всегда является необходимым.

To illustrate the point Mazel' uses the theme of the opening movement of Mozart's *Symphony No. 40 in G Minor (K. 550)*.

Example 34: W.A. Mozart, *Symphony No. 40 in G Minor (K. 550), I*



In rhythmic uniformity of motives, it is also necessary to take into account the melodic outline. Thus in the example [of Mozart's *Symphony in G Minor*] there are in total *four rhythmically identical two-bar phrases*. With that, though the whole eight-bar phrase is periodic (consisting of two similar four-bar phrases), each of the four-bar phrases is non-periodic, because the *melodic* outline of their two bar phrases differs sharply, being at the same time joined to form a single melodic whole: the preparation of a skip, the skip and its completion. It is self-evident that rhythmic identity alone of adjacent structures is not always *sufficient* for them to be perceived as similar. (p. 484-5) ¹⁰⁷

Mazel's conceptions of melody and melodic structures that surface here in the mention of the melodic outline and its constituent preparation of a skip, the skip and its

¹⁰⁷При ритмическом же единообразии мотивов необходимо принимать во внимание также и мелодический рисунок. Так, в примере [симфония g-moll Моцарта] налицо четыре ритмически тождественные двутактные фразы. Но при этом, хотя весь восьмитакт периодичен (состоит из двух сходных четырехтактов), каждый из четырехтактов непериодичен, ибо мелодический рисунок двух фраз резко различен и обе эти фразы, вместе взятые, образуют единое мелодическое целое: раскачку, скачок и заполнение. Само собой разумеется, что и ритмическое тождество соседних построений не всегда необходимо для восприятия их как сходных.

completion, are considered in greater detail in Chapter Four of this thesis. The discussion of criteria for similarity between adjacent parts of a structure—i.e. identity of rhythmic and melodic motives—concludes the presentation of a general classification of dimensions of thematic structures.

To end this section and this whole Chapter, Mazel' offers a few general observations on the historical context for dimensions of thematic structures. He states that

The process of historical development of Classical thematicism is closely linked with the gradual achievement of supremacy in themes of structures that can combine in the best way balance, just proportion, and closure, with intensive development. (p. 489) ¹⁰⁸

The period in history in which such structures did acquire supremacy, Mazel' considers to be the Classical period. He points out, however, the origins of some dimensions of thematic structures in earlier periods. Referring to Bach's music as one of the sources of the dimensional thematic structure of splitting with closure, Mazel' writes

...the period of a developing type, characteristic of Bach, in which after the initial nucleus (often non-periodic) follow many sequential divisions and a cadence...such a period is one of the sources of splitting with closure, and not only the simple type, but also the double one. (p. 488) ¹⁰⁹

Along with Bach's music, Mazel' mentions the music of Scarlatti and Haydn as sources of some basic dimensions of thematic structures.

Although the dimensionally developed structures (summation, splitting, splitting with closure) of the classical type are encountered frequently

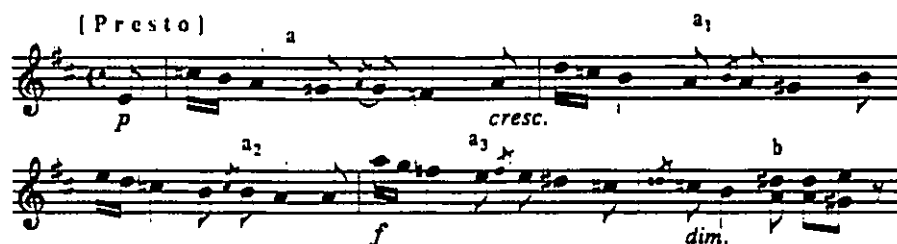
¹⁰⁸Процесс исторического развития классического тематизма тесно связан с постепенным завоеванием господства теми структурами, которые наилучшим образом могут сочетать стройность, уравновешенность, замкнутость с интенсивным развитием.

¹⁰⁹...характерном для Баха периоде типа развертывания, где за начальным ядром (чаще неперiodичным) следуют многочисленные секвентные отклонения и каданс...такие период—один из истоков дробления с замыканием и притом не только простого, но и двойного.

enough in Scarlatti and early Haydn, yet they still do not clearly predominate over other structures. Periodic repetition of a short motive or phrase, concluded by a cadence, plays a great role. The number of such repetitions can vary considerably: there can be only two, with the cadence... yielding an *aab* structure, or there can be (especially in Scarlatti) up to nine or ten repetitions. (p. 486) ¹¹⁰

As an example of such repetition that concludes with a cadence, Mazel' cites an excerpt from Scarlatti's *Sonata No. 29*.

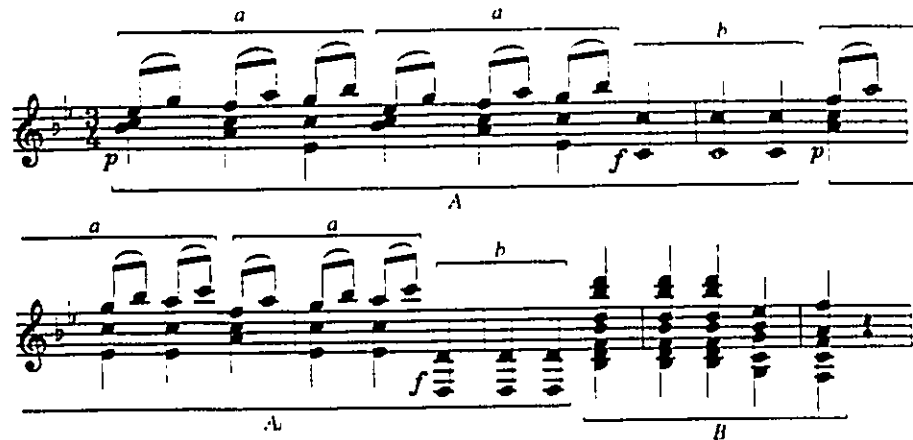
Example 35: D. Scarlatti, *Sonata No. 29 in D Major*



Also cited is an excerpt from the *Minuet* of Haydn's *Symphony No. 102 in B $\flat$ Major*, illustrating the typical repetition of phrases that concludes in a cadence. In this excerpt the motivic dimensions are reflected on the larger level of phrases: $\underbrace{aab}_{A} \underbrace{aab}_{A_1} \underbrace{b_1}_{B}$.

¹¹⁰У Скарлатти и раннего Гайдна основные масштабно развитые структуры (суммирование, дробление, дробление с замыканием) в их классическом виде хотя и встречаются достаточно часто, но еще не имеют явного главенства, преобладания над другими структурами. Огромную роль играет периодическая повторность короткого мотива или фразы, замкнутая кадансом. Количество повторений может быть при этом очень различным: их может быть, например, всего два, и тогда каданс... дает структуру *aab*, но может быть, напротив, (особенно у Скарлатти) до девяти—десяти.

Example 36: F.J. Haydn, *Symphony No. 102 in Bb Major*
(Hob. I: 102), III



Having identified the several sources of particular dimensions of thematic structures—
i.e. splitting with closure from Bach, and summation from Scarlatti and Haydn—
Mazel' states that

without their support in homophonic thematicism, with its clear differen-
tiation of motivic repetition (exact or modified) and non-repetition, clear
and successive dimensional-thematic development and its corresponding
“crystallized” structures would not have gained great prevalence and supreme
importance. Hence, it is natural that in music that is not based on, or
is not strongly based on the principles of homophonic thematicism, the
role of the regularities examined in this chapter will be far less significant.

(p. 489) ¹¹¹

¹¹¹ без опоры на гомофонный тематизм, с его ясным различием между мотивной пов-
торностью (точной или видоизмененной) и неповторностью, четкое и последовательное
масштабно-тематическое развитие и соответствующие ему «кристаллические» структуры
не могли бы приобрести широкого распространения и главенствующего значения. Есте-
ственно поэтому, что в музыке, не связанной с принципами гомофонного тематизма,
роль изученных в этой главе закономерностей гораздо меньше.

This statement suggests the restriction of presented conceptions to only that repertoire in which homophonic thematicism is fully developed.

* * *

Mazel's conceptions of dimensions of thematic structures reveal that aspect of the theory of integrated analysis which is concerned with the structure of musical works. The mathematical aspects of his conceptions reveal influences of Conus's metrotechnicism. Moreover, Mazel's ideas, though original in the systematic presentation of the structures he discusses, have their roots in the theories of Riemann. Riemann's conceptions of meter and metric analysis laid the groundwork for Mazel's systematized formulation of dimensions of thematic structures.

The last section of this chapter brings together all the discussed dimensions of thematic structures into two basic types, periodic and non-periodic. Periodicity, grouped periodicities, summation and splitting, and their progressive variants, and different splittings with closure, can all be viewed as manifestations of the two basic structural tendencies of periodicity and its overcoming, i.e. non-periodicity. Thus, despite the seeming complexity of some of the presented structures, it is possible to reduce each one of them to these two basic tendencies governing homophonic thematicism.

Mazel's insistence on the term homophonic thematicism and the foundation of his conceptions in the repertoire in which homophonic thematicism had fully developed are noteworthy. Though he points to folk origins of some dimensional-thematic structures, periodicity in particular, many of the structures he discusses can only be found

in music of the Classical period. This restriction to a particular repertoire has important implications for integrated analysis, for it limits any analytical consideration of dimensions of thematic structures to music that has strong links with the Classical period. It would be inappropriate to analyze dimensions of thematic structures in music that is not based on homophonic thematicism.

The origins of Mazel's conceptions of dimensions of thematic structures, it should be noted, extend beyond the musical repertoire. He regards the whole phenomenon of such structures as a reflection of the tendency in art for proportion (see Section One of this chapter). Moreover, Mazel extends this further in Section Four of the chapter, where he views the dimensional structure of summation as an embodiment of the human thought process, a process that is reflected in arts other than music—i.e. literature and poetry. And in Section Six, he associates the structure of splitting with closure with the logic inherent in the process of musical development, identifying four stages in this process: one, *the opening structure*, two, *confirmation and consolidation of the idea*, three, *development proper*, and four, *conclusion*. Such extramusical origins of dimensions of thematic structures reflect the ideal of the theory of integrated analysis to consider musical works in their broadest possible context. This ideal, however, is weakened to a certain extent by the limitation of conceptions of dimensions of thematic structures to a single repertoire, the Classical repertoire.

CHAPTER THREE: “ON THE EXPRESSIVE AND FORM-DEFINING ROLES OF DYNAMICS, TIMBRE, AND MUSICAL TEXTURE”¹¹²

The chapter on dynamics, timbre, and musical texture in *Analysis of Musical Works* (1967) is Mazel's only extensive treatment of these elements in the context of an integrated analytical framework. This chapter is presented here in its entirety. In all his other writings Mazel treats dynamics, timbre, and musical texture within a discussion of a broader topic, never treating any one element separately. The most attention he devotes to any of the three, excluding the chapter presented here, is in a brief discussion of musical texture in the 1979 edition of *Structure of Musical Works*. This discussion is to be found in the introductory section of a chapter (Chapter IV) on divisions in music, and mainly looks at texture in that context. The brief, three-page discussion (p. 131–3) illustrates how the change from a homophonic texture to one of parallel octaves, in the middle section of Chopin's *Nocturne in C Minor* (*Op. 48*), effects a formal change.

Mazel's seeming neglect of dynamics, timbre and musical texture in his writings stems from his view of these elements as being simpler and not subject to a definite system of relationships, as for instance are modes, harmony, and polyphony. Hence in his integrated presentation of musical elements, he regards dynamics, timbre, and texture as secondary in importance to those elements that are subject to organized systems of relationships. The discussions of dynamics, timbre, and texture in *Analysis*

¹¹²“О выразительной и формообразующей роли динамики, тембра, фактуры”

of *Musical Works* (1967), reflect Mazel's attempt at completeness in treating a theory of integrated analysis.

"SECTION ONE: Preliminary remarks" ¹¹³

In the opening section of the chapter, Mazel' discusses the role in music of dynamics, timbre, and texture. He first considers sound and its components.

... four physical properties of sound—pitch, duration, loudness, and timbre—are made use of in music in principally different forms. The pitch of sound is the basis of the inner organization of music as a sonic art... By analogy, since a musical work unfolds through time, an enormous role is played in its inner organization by temporal relationships... On the other hand, loudness and timbre, though they have very great expressive and form-defining significance, do not play so great and independent a role in the actual organization of a musical work. (p. 310) ¹¹⁴

Hence Mazel' argues that loudness and timbre constitute two of the four physical properties of sound, and notes that in music they do not have the same sort of evolved systems of relationships as the other two properties, pitch and duration. Mazel' explains this as follows.

Effectively, timbres are qualitatively varied and lend themselves to near descriptive references, but do not allow for quantitative comparison and, moreover, precise measurement. On the other hand, loudness of sound does allow for such quantitative comparison, but in music is restricted to

¹¹³§1. Предварительны замечания"

¹¹⁴...четыре физических свойства звука—высота, длительность, громкость и тембр—используются в музыке принципиально различным образом. Высота звука есть основа внутренней организации музыки как звукового искусства... Аналогичным образом, поскольку музыкальное произведение разворачивается во времени, огромную роль в его внутренней организации играют соотношения временные... Наоборот, громкость и тембр, хотя они имеют очень большое выразительное и формообразующее значение, не играют столь большой и самостоятельной роли в самой организации музыкального произведения.

(designated by) very few qualities of loudness, the fine nuances being left to the discretion and feeling of the performer. (p. 310-1) ¹¹⁵

Because of this relative imprecision of timbre and loudness, they do not lend themselves individually to exact comparison which is a prerequisite for a system of relationships: "changes in timbre and dynamic nuances in their frequency of occurrence cannot be compared with changes in pitch and duration." (p. 311) ¹¹⁶

In music in which timbre and dynamics are subject, however, to a system of relationships, Mazel' sees a disintegration of a crucial element of music—melody.

Unchanging timbre and continuity (i.e. gradualness and not suddenness) of possible dynamic variations are associated with the few most elementary factors uniting melody (or at the very least each of its phrases). Systematic violation of this norm leads to a disintegration of melody, and is realized in the so called pointillist ("dotted") music in which each sound of a succession must be perceived as an independent "whole." (p. 311) ¹¹⁷

By characterizing systematic treatment of timbre and dynamics as contributing to the disintegration of melody, Mazel' dismisses any type of music which employs such techniques. The music to which he is referring is obviously that of the Viennese Twelve-tone Composers and their followers. He does not specifically state so, but the terms "pointillist" and succession (also translatable from Russian as "tone row"), and above all the reference to complete independence of each sound in a succession,

¹¹⁵ Действительно, тембры—качественно разнообразны, но допускают скорее описательные характеристики, нежели количественные сравнения и—тем более—точные измерения. Наоборот, громкость звука допускает именно количественные сравнения, но в музыке фиксируются (обозначаются) лишь очень немногочисленные громкостные качества, а более тонкие оттенки предоставляются усмотрению и чувству исполнителя.

¹¹⁶ "смены тембра и динамических оттенков по своей частоте не могут идти в сравнение со сменами высоты и длительности."

¹¹⁷ К числу наиболее элементарных факторов, объединяющих мелодию (или по крайней мере ее каждую фразу), относится единый тембр и непрерывность (т.е. постепенность, а не внезапность) возможных изменений динамики. Систематическое нарушение этой нормы ведет к распаду мелодии, осуществившемуся в так называемой пуантилистской («точечной») музыке, где каждый звук последовательности должен восприниматься как самостоятельная «цельность».

all indicate the Viennese Twelve-tone School and their followers, as being the ones he is implicating with the disintegration of melody. Melody is in Mazel's view one of, if not the most important element of music. His attention to dimensions of thematic structures of homophonic themes reflects this to a certain extent, being mostly concerned with the dimensional aspect of melody. The next and last Chapter of this thesis deals with melody alone, and will further indicate the significance Mazel' attributes to melody as one of the most crucial elements of music.

Timbre and dynamics, as well as texture, are considered by Mazel' as surface phenomena, and as having significant roles in the immediate expressive effect of music, but with less important structural roles than pitch or rhythm.

On the whole, the timbral and especially dynamic aspects of music . . . are perceived very directly, as if forming the outermost "physical" layer of the musical sonic fabric. With this is connected texture which in contrast to timbre and dynamics does not present itself as an *element* of music, but shares with them the mentioned *external* most, physically material layer, with which is interwoven (and through which is at the same time realized) one or another melodic, rhythmic, harmonic, and polyphonic inner organization of a work. (p. 311) ¹¹⁸

Mazel's exclusion of texture from among the musical elements is noteworthy. He explains this view in the opening chapter of *Analysis of Musical Works* (1967), in which he finds fault with the term 'element' when used to refer to mode, melody, tempo, meter, rhythm, harmony, etc.

Specifically, the very designation of them namely as "elements" is not

¹¹⁸В целом тембровая и особенно динамическая сторона музыки . . . воспринимается очень непосредственно, образуя как бы наиболее внешний, «телесный» слой музыкально-звуковой ткани. Сюда же примыкает и такая сторона музыки, как фактура, не являющаяся, в отличие от тембра и динамики, собственно элементом музыки, но входящая вместе с ними в тот упомянутый более «внешний» телесно-материальный слой, за которым кроется (и в котором в то же время реализуется) та или иная мелодическая внутренняя организация произведения.

equally rightful in different cases (sometimes it would follow to talk of, for instance, "aspects" of music). (p. 29) ¹¹⁹

The word "element" implies equality (structural, expressive, and otherwise), which Mazel' wishes to point out as not being the case between dynamics and melody, for instance. The two do not nearly have an equal role in the organization of a work. Thus timbre and dynamics, being two of the physical properties of sound, can be considered as elements; but texture, not being a physical property of sound, does not constitute an element and should more properly be understood as an aspect of music.

"SECTION TWO: Dynamics" ¹²⁰

Mazel's discussion of dynamics is fairly wide ranging. It touches on several topics: psycho-acoustic effects of dynamics, the role of dynamics in performance, their role in development and in musical form, and a historical view of uses of dynamics in different styles and musical eras. From among these topics, the most relevant one to integrated analysis is the role of dynamics in development and in musical form. The other topics discussed qualify and support Mazel's analytical conceptions. Some relevant stylistic questions are considered in the historical survey of the uses of dynamics.

The discussion of psycho-acoustic effects of dynamics is fairly concise and includes the most obvious effects.

Loud sounds, with other conditions being equal, have a greater effect on the nervous system; they arouse and excite more than quiet ones. . . Hence, intensification of sound is often connected with increase in tension, and weakening with attenuation and calming. . . Also it is quite understandable that intensification is associated with nearing of the source of sound, and weakening with its going farther away. . . On the other hand, a quiet, mysterious rustle is equally capable of arousing attention in man and beast,

¹¹⁹В частности, само обозначение их именно как «элементов» не одинаково правомерно в различных случаях (иногда следовало бы говорить, например, о «сторонах» музыки).

¹²⁰«§2. Динамика»

as a possible sign of danger that indicates a concealed foe. (p. 312) ¹²¹

These main psycho-acoustic effects are essential to the expressive possibilities of dynamics. Being aware of the particular psycho-acoustic effect of a dynamic allows for a clearer understanding of its expressive possibilities. This is particularly relevant as the expressive effect of dynamics, in Mazel's view, is dependant on other aspects of music, and rarely functions alone.

For instance, the rises and falls in loudness of sound within a melody indirectly *form* that development; they are an important means of expression and in large part rather organically attend melodic development, which is defined in essence by its other aspects (p. 313) ¹²²

Hence the "form-defining" and "expressive" role of dynamics in melody, as an example, is closely connected with the other aspects of melody, i.e. melodic motion, melodic waves, its modal and harmonic structure, etc. This dependence of dynamics in its role in music is apt, given that dynamics are only one of the four physical properties of sound—the other three being pitch, duration, and timbre. As Mazel' points out in the previous Section, dynamics, along with timbre, have a subservient role to pitch and duration in the organization of sound in music.

However, despite their structural dependence and subservience, dynamics are perceived by the listener in a very direct way. For this reason they have an important expressive role in performance. Mazel's comments on this are noteworthy.

¹²¹Громкие звуки при прочих равных условиях сильнее воздействуют на нервную систему, большее возбуждают, раздражают, нежели тихие... Усиление звука обычно связывается поэтому с нарастанием напряжения, а ослабление—с затуханием, успокоением... Понятно также, что усиление легко ассоциируется с приближением источника звука, ослабление—с удалением... С другой стороны, однако, тихий, таинственный шорох способен настораживать человека и животных, как возможный признак опасности, свидетельство о притаившемся враге.

¹²²Например, нарастания и спады силы звука внутри мелодии, будучи важным средством выразительности, все же в большинстве случаев скорее органически сопутствуют развитию мелодии, определяемому в основном другими ее сторонами, нежели непосредственно формируют это развитие.

Effectively, musical dynamics are one of the most important tools in the hands of the musician performer. . . It is noteworthy that tempo, like dynamics, belongs among the most directly operative factors of musical expression and at the same time least *organized* ones. There does not exist an interrupted, graded scale of tempos, and the performer can therefore vary tempo (whereas, for instance, he/she cannot vary tonality, it being strictly prescribed by musical notation). The *maximum* number of possibilities are permitted to the performer precisely in the realm of dynamics.

(p. 313–4) ¹²³

Mazel's view of dynamics and tempo as being the least organized, most variable, and most direct "factors of musical expression" reflects his preoccupation with interpretation in his integrated analytical approach. Among the most expressive elements in the actual interpretation of a musical work, according to him, are dynamics and tempo—the effect of dynamics being more direct than that of tempo. However, in the structural organization of a musical work, the analytical interpretation of which integrated analysis seeks to define, tempo and dynamics have a subservient role.

This subservience of dynamics does not, however, mean that they have no structural role. Mazel' sees the structural role of dynamics as vital to musical expression, especially in increases and decreases of dramatic tension.

Even if dynamics often do not appear. . . as the sole or principal means, and only accompany pitch, rhythmic, textural, and harmonic intensification, they are nevertheless indispensable: without that elementary "guide," other means of intensification could not properly exert their influence,

¹²³ Действительно, музыкальная динамика—это одно из важнейших орудий в руках музыканта-исполнителя. . . Заметим, что темп, как и динамика, принадлежит к числу наиболее непосредственно действующих факторов музыкальной выразительности и в то же время наименее организованных. Нет прерывной, ступенчатой шкалы темпов, и исполнитель может поэтому варьировать темп (а, например, варьировать тональность не может—она строго предписана нотным текстом). Максимальное же количество вариантов исполнения может допускать именно в области динамики.

and would to a large extent be limited and constrained in their expressive effect. (p. 314) ¹²⁴

Mazel' in fact sees the role of dynamic intensification as a general phenomenon in certain forms.

...in a great number of repeated forms development is in large part based on a single dynamic increase: the opening section is characterized by a quiet or medium sonority, the middle one contains the increase, and the repeat is forte (of course, with this the texture is often intensified)... In short, *dynamic profile* of a musical form, which as a rule is very easily perceived by the listener, should constantly be considered in the field of analysis... (p. 317) ¹²⁵

Hence Mazel' sees dynamic change as broadly connected with musical development. More specifically, he sees dynamics as playing a role in division in music. They serve to clarify formal divisions, especially "when other factors, for whatever reason, do not provide this relationship with definite enough results." (p. 315) ¹²⁶ An excerpt illustrative of such a role of dynamics is cited from the *Allegretto* of Shostakovich's *Trio* (*Op. 67*). Mazel' regards the formal division in this passage as indicated by dynamic change.

¹²⁴Пусть динамика обычно и не является... единственным, или главным средством, а лишь сопутствует нарастанию высотному, ритмическому, фактурному, гармоническому, но она необходима: без этого элементарного «спутника» другие средства нарастания не смогут должным образом воздействовать, окажутся в значительной мере ограниченными и скованными в своем выразительном эффекте.

¹²⁵... в большом числе репризных форм сквозное развитие во многом основано на едином динамическом нарастании: начальный раздел характеризуется тихой или умеренной звучностью, средний содержит нарастание, реприза идет форте (разумеется, при этом обычно усиливается и фактура)... Словом, динамический профиль музыкальной формы, который, как правило, легко воспринимается слушателем, постоянно должен находиться в поле внимания анализирующего...

¹²⁶"когда другие факторы почему-либо не дают в этом отношении достаточно определенного результата."

Example 37: D. Shostakovich, *Trio (Op. 67), I*

[Allegretto]

The whole episode, containing two statements of a fourteen-bar theme, occurs in the tonic harmony of C Minor. The opening of the second statement at [67], has a new dynamic nuance (*piano*). Without this nuance the listener could perceive the opening of the second statement as beginning two bars earlier. (p. 316)¹²⁷

¹²⁷Весь эпизод, содержащий два проведения четырнадцати-тактной темы, идет на тонической гармонии до минора. Начало второго проведения отмечено новой цифрой партитуры [67] и новым динамическим оттенком (*piano*). Не будь этого оттенка, слушатель мог бы воспринимать начало второго проведения двутактом раньше.

This example illustrates the type of structural role dynamics can play in formal divisions. From an analytical perspective, this aspect of Mazel's discussion of dynamics is most relevant to their integrated understanding.

His discussion of dynamics per se concludes with brief references to the use of dynamics in different styles and eras. Because of their brevity these references are not much more than generalizations, but they do further explain Mazel's reasoning in the formulation of analytical conceptions—i.e. the historical aspect of his analytical method. His reference to the role of dynamics in 19th and 20th century music is interesting.

The importance of dynamics (as well as timbre) grew even more in the XIX and XX centuries. For instance, loud dynamics began to play a significant role in various kinds of fundamental reorganizations (transformations) of one or another theme within a work, along with every sort of representative effect, the number and diversity of which increased considerably. At the same time it is impossible not to point out the *abuse* of dynamic effects in modern music, and the advancement of such effects (along with timbral ones) to primary importance at the expense of melody and other richer, more refined and profounder means of musical expression. (p. 318–9) ¹²⁸

Mazel's reference to modern music is not specific. The abuses of dynamic effects he points to can not therefore be linked to any particular music, but seem to be, in Mazel's view, part of a modernist trend to undermine melody and other "more refined and profounder means of musical expression," in favour of dynamics and timbre. This view was already expressed in the introductory Section to this Chapter, where Mazel'

¹²⁸Еще более возросло значение динамики (как и тембра) в музыке XIX и XX веков. Например, громкостная динамика стала играть значительную роль в разного рода коренных преобразованиях (трансформациях) одной и той же темы внутри произведения, равно как и во всевозможных изобразительных эффектах, количество и разнообразие которых весьма увеличилось. Нельзя в то же время не указать на злоупотребление динамическими эффектами в модернистской музыке, на выдвижение таких эффектов (вместе с тембровыми) на первый план в ущерб мелодии и другим более богатым, тонким и глубоким средствам музыкальной выразительности.

pointed to the disintegration of melody in pointillist music (implying by this term the Viennese Twelve-tone School and its followers).

"SECTION THREE: Timbre" ¹²⁹

Mazel' regards timbre as an aspect of music that is even less organized than dynamics. Therefore his discussion, as he points out at the end of this section, "can only give a general presentation of the wealth of functions of timbre." (p. 330) ¹³⁰ In large part, however, he sees the role of timbre as connected with the dramatic aspect of music. His discussion elaborates mainly this point, beginning with general ideas about timbre, and proceeding to a consideration of its role in the dramatic aspect of musical works. He concludes the section with a mention of the form-defining role of timbre, which, like that of dynamics, facilitates divisions in music.

Among the general ideas about timbre that Mazel' discusses at the outset are ways of defining timbres.

...timbres, in contrast to dynamic nuances, can not be set out in a single line according to one kind of qualitative characteristic. The character of different musical timbres is defined with the help of *descriptions* in which an important role is played by *likening* with all possible sounds, as well as silent phenomena of the outside world (for example, whistling, bell-like, nasal timbres, etc., as well as those that are bright, dull, warm, cold, rich, dry, dense, etc.). . . . It is evident from the very role of likening in the descriptive characteristics of timbre, how great the *representative possibilities* of that element of music are. And indeed, the different kinds of sound imitations in music are often realized with a very active role of timbre (for example, in Beethoven's *Pastoral Symphony* the singing of the nightingale is represented by the sounds of the flute, the quail—by the sounds of the oboe, the cuckooing of the cuckoo bird—by the sounds of the

¹²⁹"§3. Тембр"

¹³⁰"могут дать лишь самое общее представление об богатстве функций тембра."

clarinet, and in Rimsky-Korsakov's *The Golden Cockerel*, the cockerel's voice is represented by the muted trumpet). (p. 319) ¹³¹

The descriptive characteristic of timbre makes it one of the most directly perceived elements of music. At the same time, because it can only be defined in descriptive terms, it is not amenable to a system of relationships of the sort that governs pitch or rhythm. As an illustration of this Mazel' cites the displacement of a timbre in different versions of a work, in which the structure of the particular work is largely left intact.

...orchestral works are also published in editions for piano from which it is possible to gather a fairly complete idea of many essential aspects of the music—an idea that is comparable to that provided by a black and white reproduction of a painting (from here comes the analogy of timbre in music and color in painting). (p. 320) ¹³²

To justify further the analogy between color and timbre, Mazel' points out that "the German for timbre is *Klangfarbe*, i.e. the sound color." (p. 320) ¹³³

The expressive properties of timbre also figure prominently in the dramatic aspect of musical works. Mazel' links the dramatic function of timbre with thematicism.

¹³¹...тембры, в отличие от динамических оттенков, не могут быть расположены в одну линию по какому-нибудь одному количественному признаку. Характер различных музыкальных тембров определяется при помощи описаний, в которых значительную роль играет уподобление всевозможным звучаниям, а также и незвуковым явлениям внешнего мира (например, тембр свистящий, звенящий, гнусавый и т.д., но также и светлый, матовый, теплый, холодный, сочный, сухой, густой и т.п.) Уже из самой роли уподоблений в описательных характеристиках тембров видны огромные изобразительные возможности этого элемента музыки. И действительно, разного рода звукоподражания в музыке обычно осуществляются при весьма активном участии тембра (например, в Пасторальной симфонии Бетховена пение соловья изображено звуками флейты, перепела—звуками гобоя, а кукование кукушки—звуками кларнета, в «Золотом петушке» Римского-Корсакова голос петушка изображает труба с сурдиной).

¹³²...оркестровые произведения издаются и в клавирах, по которым можно составить себе довольно полное представление об многих существенных сторонах музыки—представление, сравнимое с тем, которое дает нецветная репродукция о картине (отсюда аналогия между тембром в музыке и цветом в живописи).

¹³³"По-немецки тембр—*Klangfarbe*, т.е. окраска звука."

... the meaning of timbre in the overall "dramatic composition" of a work appears mainly in two aspects. One of them consists of a firm connection between defined thematic material and some timbral characteristic as an inalienable part of the structure... The second aspect of timbral drama is connected with the development of a structure through the alteration of the timbral aspect of the same theme in its various appearances. (p. 321-2) ¹³⁴

Mazel' elaborates each of these aspects of timbral drama in their connection with thematicism. The first of these aspects makes great use of the descriptive property of timbre by associating a timbre with specific thematic material. This association results in a timbral-thematic phenomenon that Mazel' calls 'Leittimbre.'

... a timbre that is connected with some structural characteristic is referred to as *Leittimbre*, by analogy with *Leitmotiv* in opera. The principal realm in which *Leittimbral* characteristics are applied is precisely in opera (let us mention, for instance, the role of the bassoon and the clarinet in its lowest register in the characterization of Grafina from Tchaikovsky's *The Queen of Spades*, or the role of the flute in the characterization of the Snow Maiden in Rimsky-Korsakov's opera with the same title). (p. 321)

135

Such 'Leittimbral' association is different from the previously mentioned sound imitation, in that it includes various themes as part of a group of 'Leittimbral,' thematic

¹³⁴... значения тембра для общей «драматургии» произведения проявляется преимущественно в двух аспектах. Один из них заключается в прочном закреплении за определенным тематическим материалом некоторой тембровой характеристики как неотъемлемой черты образа... Другой аспект тембровой драматургии связан с развитием образа посредством изменения тембрового облика одной и той же темы при ее различных проявлениях.

¹³⁵... тембр, закрепленный за некоторым образным характером, называется лейттембром—по аналогии с лейтмотивом в опере. Основная область применения лейттембровых характеристик—это тоже опера (вспомним, например, роль тембра фагота и кларнета в низком регистре для характеристики графини из «Пиковой дамы» Чайковского или роль флейты в характеристике Снегурочки в одноименной опере Римского-Корсакова).

material. That is why it is not restricted only to operatic genres.

...in symphonic works fundamental connections between timbre and a defined structural realm are encountered in a more general way. For example, it is generally known that in the first movement of Tchaikovsky's *6th Symphony*, the sound of the brass is associated with the element of fate, and that of strings, with the universe of human feelings. (p. 321) ¹³⁶

Hence such abstract connection is more specific to symphonic 'Leittimbre,' in which timbral characterization is associated with ideas, rather than actual characters, as in opera.

The second aspect of the connection between theme and timbre in drama of music is found in changes of timbre when themes or motives are repeated. The descriptive characteristic of timbre also plays a role in such conditions: "its changes allow to a higher degree the uncovering of different aspects of a structure, the increase in its expression." (p. 322) ¹³⁷ The change in timbre when a theme of a motive is repeated, changes the 'color' of the repeated pitches, thus expanding the expressive possibilities of a given theme or motive. Of the many examples that Mazel' discusses, perhaps the most illustrative is a reorchestrated motive from Ravel's *Rapsodie espagnole*.

In the following example from Ravel's *Rapsodie espagnole* the transfer of the same motive from english horn to flute (in its low register), and then clarinet, embodies a gradual darkening, fading of color of the motive.

(p. 323) ¹³⁸

¹³⁶... в симфонических произведениях встречается—в более обобщенной форме—прочная связь тембра с определенной образной сферой. Общеизвестно, например, что в I части 6-й симфонии Чайковского звучание медных инструментов ассоциируется с образами рока, струнных—с миром человеческих чувств.

¹³⁷...его изменения в высшей степени способствуют раскрытию различных сторон образа, повышению его экспрессии."

¹³⁸В следующем примере из «Испанской рапсодии» Равеля последовательная передача того же мотива от английского рожка к флейте (в ее низком регистре) и затем кларнету воплощает постепенное потемнение, потускнение колорита мотива.

Example 38: M. Ravel, *Rapsodie espagnole* (1907)



The same type of reorchestration occurs in another of Ravel's orchestral works in which, however, the whole theme (as opposed to just a motive) is reorchestrated.

...Ravel's *Bolero* [is] entirely based on the variation in timbre, dynamics and texture of a single theme. With that, dynamic volume changes very slowly, creating a gradual increase from the beginning to the end of the piece, while the timbral shifts form skips (though sometimes small), and are directly perceived by the listener in transitions to each new variation. In that way the different role of timbre and dynamics, "through the effect" of the work, is closely tied with the actual nature of those elements: a uniform line of *quantitative* change (dynamics) and great *qualitative* variety (timbre). (p. 323-4) ¹³⁹

Thus through the example of *Bolero*, Mazel' defines the comparative roles of dynamics and timbre as quantitative and qualitative. While this implies a basic contrast in the effect of the two, the structural role of dynamics and timbre is essentially identical. Both serve in clarifying divisions in music.

¹³⁹ «Болеро» Равеля [есть] всецело основанное на темброво-динамически-фактурном варьировании одной темы. При этом громкостная динамика изменяется очень медленно, создавая постепенное нарастание от начала пьесы к концу, тембровые же смены образуют скачки (пусть иногда небольшие) и непосредственно воспринимаются слушателем при переходе к каждой следующей вариации. Таким образом, различная роль тембра в «сквозном действии» произведения тесно связана здесь с самой природой этих элементов: единая линия количественного изменения (динамика) и большое разнообразие качеств (тембр).

Mazel' concludes this section with an example that illustrates the structural, or 'form-defining' role of timbre. The thematic dimensions of the cited theme from the opening movement of Shostakovich's *Symphony No. 9*, are delineated by timbral divisions.

Example 39: D. Shostakovich, *Symphony No. 9* (Op. 70), I

The image shows a musical score for Example 39, D. Shostakovich's *Symphony No. 9* (Op. 70), I. It consists of four staves of music. The first staff is labeled 'Allegro' and 'V-nl'. The second staff is labeled 'Fl.solo'. The third staff is labeled 'V-nl' and 'p'. The fourth staff is labeled 'f' and 'cresc.'.

The thematically uniform opening sixteen bars of the main part represent a structure with thematic dimensions of splitting with closure: 4 + 4 + 2 + 2 + 3. In similar cases "the third quarter of the form" (here the eighth bar) often provides some kind of renewal or change, despite absence of motivic contrast. It is expressed firstly in the actual structure (the fact of division—two similar two bars instead of whole four bars)...In the example under discussion, the moment of splitting (2+2) is separated with the help of timbre: in the first, second, and final phrases, only the strings are heard, while in the third phrase (2 + 2) the melody is given to the solo flute. That creates a sort of refreshing contrast; as a consequence, the final

statement of the melody in the strings suggests a "timbral recapitulation" that, along with the element of thematic recapitulation (of the second phrase), greatly emphasizes the closure and completeness of the whole. (p. 329–30) ¹⁴⁰

The reader is already thoroughly familiar with the dimensional thematic structure of splitting with closure (Chapter Two, Section Six), of which this Shostakovich theme is an example. The main interest in this example is the moment of splitting, which is re-orchestrated, thus emphasizing that part of the splitting with closure, and illustrating the form-defining role of change of timbre.

"SECTION FOUR: Texture" ¹⁴¹

As mentioned in Section one of this Chapter, texture is the only one of the three aspects of music discussed in the chapter that Mazel' discussed per se before *Analysis of Musical Works* (1967). It is a topic around which another Soviet theorist, Yury Nikolaevich Tiulin (1893–1978), constructed a whole theory. ¹⁴² Mazel's understanding of texture reflects Tiulin's influence, particularly in the basic definition of texture. His discussion of texture in this section can be divided into essentially three broad categories: definitions of texture, classifications of different textures, and roles of texture in music.

Mazel's definitions of texture emphasize the vertical property of that aspect of music.

¹⁴⁰Тематически однородный начальный шестнадцатитакт главной партии представляет масштабно-тематическую структуру дробления с замыканием: 4 + 4 + 2 + 2 + 3. В подобных случаях «третья четверть формы» (здесь третий четырехтакт) обычно дает, несмотря на отсутствие мотивного контраста, некоторое обновление, изменение. Оно выражено прежде всего в самой структуре (факт дробления—два сходных двутакта вместо цельного четырехтакта)... В разбираемом примере момент дробления (2 + 2) выделен при помощи тембра: в первом, втором и последнем построениях звучат только струнные, в третьем же четырехтакте (2 + 2) мелодия поручена солирующей флейте. Это создает некоторый освежающий контраст, а кроме того, сообщает последующей передаче мелодии скрипкам характер «тембровой репризы», что вместе с элементом тематической репризы (второго четырехтакта) весьма усиливает замкнутость, завершенность целого.

¹⁴¹«§4. Фактура»

¹⁴²McQuere, 346.

"The character, interconnection and function of simultaneously unfolding components of a work or a fragment of it, are called texture." (p. 331) ¹⁴³

The key words in this broad definition are "simultaneously unfolding components," which in more concrete terms refer to the number of voices sounding simultaneously.

The aspect of Mazel's definition of texture that reflects Tiulin's influence, is the attempt at relating the simultaneous and successive dimensions of music.

...the relationship between *form* and *texture* resembles the relationship between melodic *succession* of pitches and their *simultaneous* harmonic combination. (p. 333) ¹⁴⁴

Tiulin's theory divides texture, or "the musical sound fabric," into melody and harmony, each of which in turn is subdivided into rhythm and melos,¹⁴⁵ and modal and phonic functions. ¹⁴⁶ Tiulin's conception of texture thus includes a horizontal element in the domain of melody. Mazel' does not extend the definition of texture to that domain, but connects the relationship of texture to form (which relates successive occurrences), with that of melody to harmony. Mazel's view of texture is thus more general than Tiulin's, in that it assigns in a broad way the connections between simultaneous occurrences to texture, countering the broad successive occurrences of form.

This view leads Mazel' to classify textures in a way that is similar to various classifications of form.

The general systematization of texture differentiates textures above all as *single-voiced* or *multi-voice*... There are two types of multi-voiced ones: *polyphonic* and *homophonic* (besides them there also exists the *heterophonic* type in which all voices rhythmically vary one and the same

¹⁴³"Характер, соотношение и функции одновременно развертывающихся компонентов произведения или его отрывка и называются фактурой."

¹⁴⁴...отношение между формой и фактурой напоминает отношение между мелодической последовательностью тонов и их одновременным гармоническим сочетанием.

¹⁴⁵See Section 1 of Chapter 4 for a discussion of the term melos.

¹⁴⁶McQuere, 347.

melody). Polyphony, . . . , is further divided into *imitative* and *non-imitative*. . . The *homophonic* type, also known as *homophonic-harmonic*, is further divided into *strict chordal* style and *purely homophonic* in which the harmonic accompaniment is clearly separated from the melody. (p. 340) ¹⁴⁷

This classification of textures identifies the possible types of simultaneous combinations of voices. Mazel' is careful to point out that some combinations of voices can contain two types of textures at once. Such types of textures he calls two-leveled.

There exist, of course, a large number of mixed types of textures (for example, a number of voices form a harmonic accompaniment, and the others, a polyphonic fabric, either imitational or contrasting). It is particularly important to consider, regardless of the adduced classification, whether a texture contains one or two levels, or whether it is one-leveled. (p. 340) ¹⁴⁸

Mazel' sees two-leveled texture as common to lyrical music: "clear differentiation of two levels, connected with maximum delineation of melody, is common, for instance, to many forms of lyrical music. . ." (p. 341) ¹⁴⁹ By lyrical music, Mazel' only means the type of music in which the melody and accompaniment are clearly differentiated. His use of the term here is not more specific than that.

Mazel' sees the role of texture in music as specific to certain genres.

¹⁴⁷Общая систематика фактуры различает прежде всего фактуру одноголосную и многоголосную. . . Многоголосие знает два основных склада: полифонический и гомофонный (кроме них, существует еще гетерофонный склад—при котором все голоса ритмически варьируют одну и ту же основу). Полифония, . . . , подразделяется на имитационную и неимитационную. . . Гомофонный, или, как его еще называют, гомофонно-гармонический, склад и собственно гомофонный, при котором ясно выделяется мелодия и гармоническое сопровождение.

¹⁴⁸Существует, разумеется, огромное количество смешанных видов фактуры (например, часть голосов образует гармоническую ткань, имитационную или контрастную). Важно, в частности, независимо от приведенной классификации, учитывать, содержит ли фактура первый и второй планы или же она однопланова.

¹⁴⁹"Ясная дифференциация двух планов, связанная с максимальным выделением мелодии, свойственна, например, многим образцам лирической музыки. . ."

Many types of texture are closely connected with certain genres, with their basic character. Such, for example, are forms of accompaniment in some dances. Those forms provide a stimulus for motion, which in certain cases, if the accompaniment contains a rhythmic figure that is characteristic in the given dance, even prompt the very nature of that motion (bolero, polonaise, tango, habanera)... After all, texture (at times, accompaniment—"the texture of accompaniment") often contains the most persistent and generalized aspects of a genre. (p. 334) ¹⁵⁰

Other roles of texture that Mazel' identifies are related to form. He sees change in texture as playing a significant role in formal divisions.

One and the same texture (i.e. one and the same number of voices with the same functions, same character of motion, figuration, etc.) often remains through the extent of a more or less significant passage, and appears as one of the *constant* factors defining the character of musical expression of that passage. Hence it is natural that in such circumstances infrequent and defined *change* in texture often signifies the beginning of a new structure, of a new part in a form. That, in large part, defines the *form-defining* importance of texture. (p. 332) ¹⁵¹

Hence, texture shares a similar form-defining role with dynamics and timbre—i.e. in facilitating formal divisions. However, it also has the capacity to play the exact

¹⁵⁰ Многие типы фактуры тесно связаны с определенными жанрами, с их основным характером. Таковы, например, формы аккомпанемента в некоторых танцах. Эти формы дают стимул движения, а в случае, если сопровождение содержит характерную для данного танца ритмическую фигуру, даже подсказывают самый тип этого движения (болеро, полонез, танго, хабанера)... Фактура же (в частности, аккомпанемент—"фактура сопровождения") часто концентрирует в себе наиболее стойкие и обобщающие черты жанра.

¹⁵¹ Одна и та же фактура (т.е. одно и то же количество голосов с теми же их функциями, тем же характером движения, фигурации и т.д.) часто сохраняется на протяжении более или менее значительного отрывка и является одним из постоянных факторов, определяющих характер музыкальной выразительности этого отрывка. Естественно также, что при таких условиях резкая и определенная смена фактуры обычно означает начало нового построения, нового раздела формы. Этим во многом определяется формообразующее значение фактуры.

opposite form-defining role—i.e. it brings about formal divisions. Mazel' uses the sonata form to illustrate this point.

It is possible to illustrate that sometimes the approach of a theme in recapitulations of sonatas is realized at first *only* through textural-dynamic means (and that provides full artistic effect), and approach of a tonality (i.e. the transition to the main tonality) only follows. (p. 337) ¹⁵²

With this presentation of definitions, classifications, and roles of texture, Mazel's discussion concludes.

* * *

Mazel's presentation of his conceptions of dynamics, timbre, and texture, reflects that aspect of the theory of integrated analysis which is concerned with the nature of music as one of the arts. Mazel' points out the secondary structural importance of these elements in terms of the complex of elements which comprise music. His ideas on dynamics, timbre, and texture emphasize their basic defining qualities. He sees dynamics as one of the most directly perceived elements of music. Timbre possesses similar qualities, but cannot be defined in as concrete way as dynamics. Being actual physical properties of sound, dynamics and timbre have vital expressive and form-defining roles in music.

Mazel' argues that texture, since it is not an easily quantifiable physical property of sound, does not have the immediate expressive effect that dynamics and timbre

¹⁵²Показательно, что иногда сближение тем в сонатных репризах осуществляется сначала только фактурно-динамическими средствами (и это полноценный художественный эффект), а тональное сближение (т.е. переход в главную тональность) следует позднее.

do. Texture, according to him, has structural significance because it defines the overall make-up of the combinations of sounding voices. Changes in texture can have form-defining functions like dynamic and timbral changes, and can delineate formal divisions.

Mazel's view that in modern music dynamics and timbre usurp the roles of more structurally important elements, is noteworthy. His negative view of music that elevates dynamics and timbre to levels of higher structural importance reflects rejection of such music. In the theory of integrated analysis, this rejection narrows the scope of repertoire to which such analysis can be applied.

CHAPTER FOUR: “MELODIKA”

As Mazel' points out in the Introduction to his 1967 edition of *Analysis of Musical Works* (p. 5), the material of the chapter on melody is in large part based on his previous works *On Melody* (1952) and *Structure of Musical Works* (1960). His treatment of the subject of melody is most detailed in *On Melody*, and receives at least a chapter in each of his textbooks intended for instruction of musical form (*Structure of Musical Works*, 1960-1st ed., 1979-2nd ed.) and integrated analysis (*Analysis of Musical Works*, 1959, 1967). The *Melodika* chapter from *Analysis of Musical Works* (1967) is Mazel's discussion of melody presented here.

The recurring themes in his various treatments of the subject of melody are noteworthy. They all include the delineation of a broad conception of melody, a discussion of the modal structure of melody, and an exposition of the expressive possibilities of the shape of a melodic line. All of these are topics Mazel' would have expected his analysis students to master before attempting analytical consideration of specific melodies. In the chapter on melody in the first edition of *Analysis of Musical Works* (1959), Mazel' devotes three sections to the subject, dividing these according to the three stated areas. A similar presentation is printed in the first edition of *Structure of Musical Works* (1960), with the addition of a fourth section that discusses the connection between the shape of a melodic line and the modal aspect of melody. This chapter appears in similar form in the second edition of *Structure of Musical Works* (1979).

The most extensive treatment of the subject of melody in Mazel's course textbooks appears in the 1967 edition of *Analysis of Musical Works*, the chapter presented

here. This chapter is a condensation of *On Melody*. It contains, in effect, a summary of each chapter of that book, reduced to one section. It should be noted, however, that this chapter excludes a large section of *On Melody*, in which the melodic styles of Bach, Beethoven, Chopin, Glinka, Tchaikovsky, Rachmaninoff, and several Soviet composers are treated. Mazel's unpublished Doctoral Dissertation, *Basic Principles of Melodic Structure in a Homophonic Theme* (1940), is also a source of material for this chapter, as well as for his other discussions on melody.

"SECTION ONE: The role of melodic principles in music. The meaning of terms 'melody,' 'melos,' and 'melodika' "¹⁵³

The leading role of melody, and melodic principles in music, is generally known. It is characteristic that often in common usage, music is *identified* with melody ... Classical composers such as Mozart, Glinka, and Rachmaninoff repeatedly expressed themselves on the importance of melody... It is only natural that the struggle for the further development of a realistic music, is to a large extent a struggle for a vivid, expressive melody, without which music is unable to express loftier feelings, ideas, profound experiences, or to capture a mass audience. And by the same token, the decadent corruption of music by every sort of anti-realistic trend, is closely related to the disintegration of melody, and the rejection of it.

(p. 41) ¹⁵⁴

Mazel's view that music needs to express lofty ideals, and at the same time capture

¹⁵³§1. Роль мелодического начала в музыке. Значение терминов «мелодия», «мелос», «мелодика» "

¹⁵⁴Ведущая роль мелодии, мелодического начала в музыке общезвестна. Характерно, что иногда обычное словопотребление как бы отождествляет музыку с мелодией... Значение мелодии неоднократно подчеркивали в своих высказываниях композиторы-классики, например Моцарт, Глинка, Рахманинов. Естетственно, что борьба за дальнейшее развитие реалистической музыки есть в значительной мере борьба за яркую, впечатляющую мелодию, вне которой музыка не может выразить большие чувства, идеи, глубокие переживания, способные захватить массы слушателей. И наоборот, декадентское разложение музыки, всевозможные антиреалистические течения тесно связаны с распадом мелодии, с отказом от нее.

a mass audience, reflects his Marxist views on art. The terms realistic versus anti-realistic music, are Marxist definitions. It is noteworthy that Mazel' brings to bear Marxist views in defining the role of melodic principles in music. Instances of Marxist influence can be found throughout his theoretical writings. The inspiration for Mazel's book *On Melody*, as an example, was a directive from the "First All-Soviet Congress of Soviet Composers" held in 1948 in Moscow, in which the Marxist goals of Soviet musicology were defined. One of these goals was the furthering of 'the science of melody.'

Another example of Marxist influence in Mazel's works can be found in his theory of expressive possibilities of musical means, discussed briefly in section five of the introductory chapter to *Analysis of Musical Works* (1967), and at length in *Questions on the analysis of music: an attempt at bringing together musicology and aesthetics* (1979). This theory proposes a Marxist approach of relating the 'means' to the 'content' of a work of art. The 'means' refer to the particulars of a work, which in music are the notes, the rhythms, the instrumentation, the dynamics, etc., whereas the 'content' refers to the social message of a work of art. Mazel' also identifies 'content' in music with genre and style, which he considers to be embodiments of the social role of music. Melody, in this context, is only one of the 'means' of music.

In order to illustrate the role of melodic principles in music, Mazel' discusses the origin and the various uses of the word melody.

The origin of the word 'melody' is the ancient Greek word *μελος* (*melos*), which refers to 'song.' Its usage has different meanings ... It is possible to separate *three groups of meanings* of the word 'melody' . (p. 41)¹⁵⁵

The three groups of meanings that Mazel' discusses can be characterized as broad understandings of melody. The first refers to the most literal meaning.

¹⁵⁵Слово «мелодия» происходит от древногреческого *μελος* (мелос), что означает «песня». Оно употребляется в различных значениях. ... Можно выделить три группы значений слова «мелодия».

"...melody—the musical thought expressed in a single voice"¹⁵⁶

Mazel's use of the words *musical thought* to characterize melody implies a more general phenomenon than only the statement of a theme or motive in a single voice. The meaning of melody to which he refers implies the musical thought of a whole work expressed in a single voice. Such a broad understanding, he argues, has led to a new definition of melody in Soviet musicology.

This definition has been extended by Soviet musicologists to counterbalance the previous, purely formal definition of melody as a succession of sounds of different pitch. Such a new definition presupposes two basic possibilities: 1) a *single-voiced* musical thought as a musical whole ...; 2) the main voice of a multi-voiced musical thought. (p. 42)¹⁵⁷

The novel aspect of the definition, from a Western point of view, is the broader understanding of melody as a musical thought that embodies a whole work. The second group of meanings of the word melody Mazel' discusses is part of the 'purely formal' definition of melody referred to above.

...under melody is understood that element of music which is constituted by *changes in pitch* (or more broadly speaking, the relationships between such changes) in a single-voiced succession of sounds ... specifically, however, it is impossible to conceive of only 'changes in height', separately from rhythmic relationships, from dynamics, from timbre. Melody, as an element of music, can only theoretically be separated from the musical whole. (p. 42) ¹⁵⁸

¹⁵⁶ "...мелодия—музыкальная мысль, выраженная в одном голосе."

¹⁵⁷ Это определение выдвинуто советскими музыковедами в противовес прежнему чисто формальному определению мелодии как последовательности звуков разной высоты. Приведенное новое определение подразумевает две основные возможности: 1) одноголосную музыкальную мысль как музыкальное целое...; 2) Главный голос многоголосной музыкальной мысли.

¹⁵⁸ ...под мелодией понимают элемент музыки, представляющий собой

Mazel's insistence on the musical whole points to the synthetic tendency that underlies his whole integrated approach to analysis. He insists that any separation of an element of music from the whole must be understood in its proper context of analysis. He points to this in his initial explanation of integrated analysis, when he writes that analysis does not imply "the opposition (within theoretical study) of analytical and synthetical approaches... Both these approaches represent two aspects of the same method..." (p. 7) ¹⁵⁹ Hence, the theoretical abstraction that is the second meaning of the word melody is in Mazel's opinion a necessary part of the analytical process.

He further explains the 'purely formal' definition of melody:

... the changes in height of a single-voiced succession of sounds in a musical work, have two aspects: *modal relationships* and *melodic outlines*. The first of these aspects is connected with the modal function of sounds and intervals ... The second aspect is made up of the distribution of, and the relationship between (in a single-voiced succession of sounds) changes in height, *looked at from the point of view of length and direction* ..."
(p. 43) ¹⁶⁰

These two aspects of melody are in many ways self-evident. Mazel' points them out for his analysis students as reference points in the analytical process. He sees, however, a difference in the two aspects of changes in height of a single-voiced succession of sounds for the overall understanding of melody.

высотные изменения (или шире—высотные соотношения) в одноголосной последовательности звуков... в частности, невозможно представить себе реальное исполнение одних лишь «высотных изменений» вне временных соотношений, вне динамики, тембра. Мелодию, как элемент музыки, можно выделить из музыкального целого только теоретически.

¹⁵⁹ "... не противопоставление (внутри теоретического изучения) аналитического подхода синтетическому ... Оба эти подхода должны быть двумя сторонами единого метода ..."

¹⁶⁰ ...высотные изме-
нения в одноголосной последовательности звуков музыкального произведения имеют две стороны: ладовые соотношения и мелодический рисунок. Первая из этих сторон связана с функциями звуков и интервалов в ладотональности... Вторая сторона представляет собой распределение и соотношение (в одноголосной последовательности звуков) высотных изменений, рассматриваемых с точки зрения их величин и направления.

Melody, as an element of music, includes in a general sense both aspects of changes in height [of sound] ; in a specific sense, it includes only the second one—i.e. melodic shape and the melodic line. (p. 43)¹⁶¹

He qualifies this view with a statement that “tonal organization is not only based on melody, but to a no lesser extent on harmony.” (p. 43)¹⁶² Because of this more general property of tonal organization, the narrower sense of melody excludes this aspect of ‘modal relationships,’ considering pitch successions outside of their harmonic implications and only taking note of the resultant melodic shapes. Such a distinction does border on semantics. However, it should be considered within the context of Mazel’s attempt to illustrate the role of melodic principles in music through a discussion of the various meanings of the word “melody.”

...the third group of meanings [of the word “melody”] ...is connected with a general understanding of melody as a *melodic principle* in music—melodiousness, tunefulness. Such an understanding does not reduce melody to an element (even though tunefulness depends not so much on height relationships, but on rhythmic and other ones as well), or a mere single-voiced succession of sounds. (p. 42)¹⁶³

For Mazel’, this third group of meanings is in some ways the most essential because it takes into account expressive aspects of melody.

“...the third group of meanings suggests melodiousness and tunefulness as definable aesthetic qualities ...” (p. 44)¹⁶⁴

¹⁶¹ Мелодия, как элемент музыки, в широком смысле охватывает обе эти стороны высотных изменений [звуков]; в узком смысле—только вторую, т.е. мелодический рисунок или мелодическую линию.

¹⁶² “...действие ладотональной организации распространяется не только на мелодию, но и в не меньшей степени на гармонию.”

¹⁶³ ...третья группа значений [слово мелодия]...связана с обобщенным пониманием мелодии как мелодического начала музыки, мелодичности, певучести. Это понимание не сводится к мелодии как элементу (ибо певучесть зависит не только от высотных, но и от ритмических и иных соотношений) или как одnogолосной последовательности звуков.

¹⁶⁴ “...третья группа значений предполагает мелодичность, певучесть как определенное эстетическое качество ...”

Mazel' does not define these aesthetic qualities in terms more specific than 'melodiousness' or 'tunefulness.' While he does consider this group of meanings to be crucial to the understanding of the role of melodic principles in music, they have relatively small relevance to analysis. The closest Mazel' comes to defining this meaning of melody in concrete analytical terms, is to call it "the melodic verse of music."¹⁶⁵ (p. 44)

Because there exist so many meanings for the word melody, Mazel' discusses several other words that refer to melody in a more specific sense. These are 'melos' and 'melodika.'

The term 'melos', derived from the mentioned ancient Greek word, was introduced to musicology approximately fifty years ago, concurrently in Russia (by B. Asafiev) and abroad. (p. 45)¹⁶⁶

Boris Asafiev uses this word in his *Musical form as a Process* (1930) to refer to the continuous, dynamic process of musical development, of which he considers melody to be one of the most vital aspects.¹⁶⁷ Asafiev, the editor of the 1931 translation into Russian of Ernst Kurth's *Grundlagen des linearen Kontrapunkts* (1917), was strongly influenced in the formulation of his idea of 'melos' by the German theorist's conception of 'tonal streams.' Kurth strongly identified 'Melodik' ("the expression of absolute melody") with the notion of 'tonal streams,' writing in *Die Voraussetzungen der theoretischen Harmonik und der tonalen Darstellungssysteme*. "Melody, as a most general and primal concept, represents a path of motion over which a tone, as an imaginary body, travels." ¹⁶⁸

¹⁶⁵"мелодической стихии музыки"

¹⁶⁶Термин мелос, точно воспроизводящий упомянутое греческое слово, был введен в музыковедение около сорока лет назад, почти одновременно в России (Б. Асафьев) и зарубежом. [While Mazel' does say that the term 'melos' has come into use in Western musicology, sometimes in the thirties, the *Grove's* does not record any musicological use for this word.]

¹⁶⁷McQuere defines Asafiev's concept of 'melos' as "the linear aspect of music. Melody is the instance of 'melos' which includes 'the quantity and function of melodic formation.'" (382)

¹⁶⁸"die Melodie als allgemeinsten und ursprünglichsten Begriff stellt eine Bewegungstrecke dar, die der Ton, als Körper vorgestellt, durchläuft." [E. Kurth, *Die Voraussetzungen der theoretischen*

Mazel's explanation of 'melos' stresses the dynamic musical processes that idea embodies.

...in the understanding of 'melos' is especially stressed the song-like *continuity* of melodic development, its emotionally spontaneous impulse, its dynamic process, and not melodic design in its completion and branching out of the musical thought. (p. 45)¹⁶⁹

Contextually, however, in discussing melody, Mazel' mentions 'melos' as an example of an aspect of melody, conceived of by another theorist.

The last word whose meaning Mazel' discusses is 'melodika,' the word with which he entitled this chapter.

...the term [melodika] has two basic meanings. One of those [is] ... *the totality of all properties of melody, such as type, genre, style, character, etc...* The second one is *the study of melody, the science of melody*. (p. 45)¹⁷⁰

Given this explanation, it is easy to understand the reason why Mazel' would call a chapter in which he proposes a theoretical understanding of melody, 'melodika.'

"SECTION TWO: The nature of melody. The main aspects of melody"¹⁷¹

In the previous section Mazel' explained the role of melodic principles through a discussion of the various meanings of the word melody. In continuing the explanation of his understanding of melody, he still uses the word as a vehicle for conveying his

Harmonik und der tonalen Darstellungssysteme (München: Musikverlag Emil Katzschler, 1913), 62.]

¹⁶⁹...в понятии мелоса специально акцентируется песенная непрерывность мелодического развития, его стихийно-эмоциональный импульс, процессуально-динамическая сторона, а не оформленность мелодии в законченную и ограниченную музыкальную мысль.

¹⁷⁰...термин [мелодика] имеет два основных значения. Одно из них [есть]...вся совокупность и общие свойства мелодий какого-либо рода, жанра, стиля, характера и т. д. ...Второе значение слова «мелодика»—учение о мелодии, наука о мелодии.

¹⁷¹§2. Природа мелодии. Важнейшие стороны мелодии"

ideas. This time, instead of concentrating on the word melody itself, he discusses the spoken word and draws analogies between it and melody.

...melody, like the art of music in its entirety, has an *intonational* nature. This means that the expressiveness of melody, its ability to embody man's feelings and ideas, his emotional states in an artistic way, is to a large extent based on the same general suppositions as the expressiveness of intonation of the spoken word ...melodic turns, like intonations of the spoken word, acquire the character of exclamations, assertions, questions, answers, sighs. (p. 45-6) ¹⁷²

The analogy between the spoken word and melody, and music in general, is not original to Mazel'. Russian 20th-Century theorists have been constantly preoccupied with this analogy and the formulation of theories based on it. The earliest example is Boleslav Yavorsky's theory of modal rhythm, put forth in his *The Structure of Musical Speech* (1908). While the spoken word is a vital inspiration for Yavorsky's theory, the central idea of modal rhythm is the conception of 'auditory gravity' embodied in the behaviour of the tritone. In its attempt to propose a "system applying to all music," modal rhythm is in many ways the sort of dogmatic, scientifically inclined theory against which Mazel's integrated analysis is a reaction. Sergey Protopopov also developed theories based on the analogy between the spoken word and music. His *The Elements of Musical Speech* (1930-31) was a further development of Yavorsky's theory of modal rhythm, and was in fact written under Yavorsky's supervision (Yavorsky having been Protopopov's mentor). ¹⁷³

¹⁷² ...мелодия, как и музыкальное искусство в целом, имеет интонационную природу. Это значит, что выразительность мелодии, ее способность художественно воплощать чувства и мысли человека, его душевные движения основана во многом на тех же предпосылках, что и выразительность интонаций живой речи...мелодические обороты могут, подобно интонациям словесной речи, приобретать характер восклицания, утверждения, вопроса, ответа, вздоха.

¹⁷³McQuere considers Protopopov's *The Elements of Musical Speech* to be the only "reasonably complete" explanation of the theory of modal rhythm. (112)

The theories of Boris Asafiev are more relevant to Mazel's treatment of the analogy between the spoken word and music. Asafiev's *Intonation* (1947) is a classic of Soviet music theory. Its influence on Mazel is unquestionable. *Intonation* is Asafiev's formulation of an understanding of music that is based on ideas about human speech. McQuere offers a definition for Asafiev's conception of 'intonation.'

Broadly, [intonation is] any kind of human communication by means of sound. Intonation in music is distinguished from intonation in speech by the use of intervals. *Rhythmic intonation* (ritmo-intonatsiia), as in chant, closely allies pitches and words. True musical intonation, potentially or actually independent of words, is the communicative essence of some musical structure, linking composer and listener through the medium of performance. In a narrow sense it may be an identifiable fragment that coincides with a motive, but is not a structural unit. It may also be an entire section of a work. An intonation reflects an environment and era that created it, and may also have some value as an image. ¹⁷⁴

Mazel's use of the word 'intonation' implies all of these things. His reference to the analogy of the spoken word, in this sense, is part of a theoretical tradition. His reference to the *intonational nature* of melody is a reference to the whole sum of meanings that 'intonation' (*intonatsiia*) is understood to have in Russian music theory. In the immediate discussion of melody as one of the elements of music, Mazel uses the analogy of the spoken word as a foil for properties of melody that he wishes to demonstrate to students of integrated analysis.

...for example, in each concrete instance of a medium tempo which undergoes change through acceleration or deceleration, there are attributable intonational and dynamic cadences at the end of a phrase, which constitute the very role and character of *divisions* into phrases and into other

¹⁷⁴ibid., 382.

segments (this has allowed for the possibility of applying in musicology such concepts and terms as phrase, sentence, period, caesura, foot). (p. 46) ¹⁷⁵

The analogy of word formations and their structures is at the root of Mazel's understanding of divisions in music—a topic to which a whole chapter of *Analysis of Musical Works* (1967) is devoted. Here he attributes intonational and dynamic properties of speech to melodic *accelerandos* and *ritardandos*.

Mazel' contrasts intonation of speech and music.

Intonations of speech have a sliding, glissando-like character. On the other hand, musical intonation of necessity produces a modally based system of "scale-degrees" of fixed and differentiable heights . . . tonal organization [is] that *specific basis* which separates intonation in music from that in speech. Deviation from this basis leads to the falling apart of melody and of the art of music. (p. 47–8) ¹⁷⁶

This explanation is mainly Mazel's presentation of Asafiev's understanding of intonation. Mazel' does concentrate more on tonal organization as the basis for differentiating musical and speech intonation, in contrast to Asafiev, who sees the interval as the basis for differentiation. For Mazel' the interval is more an element with expressive possibilities, than a basis for differentiating intonation in music and speech.

Intervals in themselves possess only expressive *possibilities*. For instance, reference to the quality of active resolution of the ascending perfect fourth,

¹⁷⁵ . . . например наличие в каждом конкретном случае некоего среднего темпа, от которого делаются отклонения—ускорения и замедления; сюда же относятся интонационные и динамические спады к концу фраз, да и роль и характер самой расчлененности на фразы и другие разделы (это и обусловило возможность применения в музыкознании таких понятий и терминов, как фраза, предложение, период, цезура, стопа).

¹⁷⁶ Интонации речи носят скользящий, глиссандирующий характер. Наоборот, музыкальное интонирование необходимо вырабатывает на ладотональной основе ту или иную «ступенчатую» систему фиксированных и дифференцированных высот; . . . ладотональная организация—та специфическая основа, которая отличает музыкальное интонирование от речевого. Отказ от этой основы приводит к распаду мелодии, распаду музыкального искусства.

is often made. In practice this is only one of the expressive possibilities of this interval. It is realized if the perfect fourth is clearly set apart, tending from the dominant toward the tonic, and from an upbeat to a downbeat ... (p. 47) ¹⁷⁷

Mazel's insistence on understanding intervals within the context of their expressive possibilities, and not within their role of differentiating intonation in speech and music, is consistent with his integrated analytical approach. He views all elements of music (one of which is intervals) as having different "expressive possibilities" that are dependant on their context for their expressive effect. Mazel' points out that the expressive possibilities of melodic intonation are enhanced by rhythmic and tonal organization.

Strict tonal and rhythmic organization of melody is not a "shackle" on its expressiveness: on the contrary, such high degree of organization serves as a richer source of diverse musical expression itself, which greatly exceeds the expressive possibilities of speech intonation ("the melody of words"). (p. 48) ¹⁷⁸

In pointing out the role of tonal and rhythmic organization in expressiveness of melody, Mazel' is stating the obvious. His aim, however, is to contrast this organization in melodic intonation with its absence in speech intonation.

To conclude this section on the nature and main aspects of melody, Mazel' offers a quizzical example that exposes the importance in melody of tonal and rhythmic organization.

¹⁷⁷Интервалы же сами по себе обладают лишь выразительными возможностями. Например, иногда говорят об активном, решительном характере интервала восходящей кварты. В действительности же это лишь одна из выразительных возможностей данного интервала. Реализуется она, если кварта ясно выделена, направлена от доминанты к тонике и от затакта к сильной доле...

¹⁷⁸Строгая ладовая и ритмическая организация мелодии—это не «соковы» для ее выразительности: наоборот, высокая степень организованности служит богатейшим источником самой разнообразной музыкальной выразительности, далеко превосходящей выразительные возможности речевых интонаций—«мелодии речи».

It is easy to convince oneself that a melody performed quietly or loudly by a voice or any instrument will be recognized by the listener as *that particular* melody, assuming the pitch and rhythmic (tempo, rhythm, meter) relationships are preserved. On the other hand, if the pitch or rhythmic relationships (or even both at the same time) of sound are essentially altered—with timbre, loudness, and register remaining intact—this will render a melody perfectly unrecognizable. From this it can be seen that the main role in melody is played by pitch and rhythm. (p. 48) ¹⁷⁹

Thus, in Mazel's integrated theoretical framework of understanding melody, the elements that constitute it are subject to a hierarchy at the top of which are pitch and rhythm.

“SECTION THREE: Modal and modal-harmonic aspects of melody” ¹⁸⁰

Mazel's discussion of the modal and modal-harmonic aspects of melody touches on three topics. The first topic he discusses is different modes, their national origins, colour, tension as engendered by particular scale degrees, and the role of change of mode in melodic development. The second topic he discusses are particular intervals and interval formations. Under this topic he discusses 'hidden' (i.e. filled out) intervals and 'connective' intonation (i.e. compound melody). The third topic he discusses is the specific role of harmonization and ways in which it defines function of notes in a melody, providing consonant support or generating dissonance.

Mazel' begins the discussion of the first topic with these words.

Modal aspects of melody are often connected with *elements of national character*. Thus in Russian folk melody, characteristic elements are change

¹⁷⁹ Легко убедиться, что мелодия, исполненная тихо или громко, голосом или на любом инструменте, узнается слушателем как та же мелодия, если сохранены без изменения высотные и временные (темп, ритм, метр) соотношения. И наоборот: если существенно изменить высотные или временные отношения звуков (а тем более и те и другие вместе), то даже при сохранении тембра, громкости, регистра, способа исполнения узнать, определить мелодию как ту же будет совершенно невозможно. Отсюда видно, что главную роль в мелодии играют высотная и временная стороны.

¹⁸⁰ “§3. Ладовая и ладогармоническая сторона мелодии”

of mode (especially of the type based on superimposition of the major and the parallel minor), pentatonicism..., elements of Mixolydian, Dorian, Phrygian modes, and the natural minor. In Ukrainian folk song one often finds the harmonic minor, as well as the harmonic minor with a raised scale degree four. This last mode is also characteristic of Hungarian folk music, as well as (including a number of other modes containing the augmented second) of music of many Eastern people. (p. 49-50) ¹⁸¹

From these general statements, Mazel' proceeds to discuss specific examples, one of which is a Ukrainian song that uses the harmonic minor with a raised scale degree four. He precedes this example with a statement that

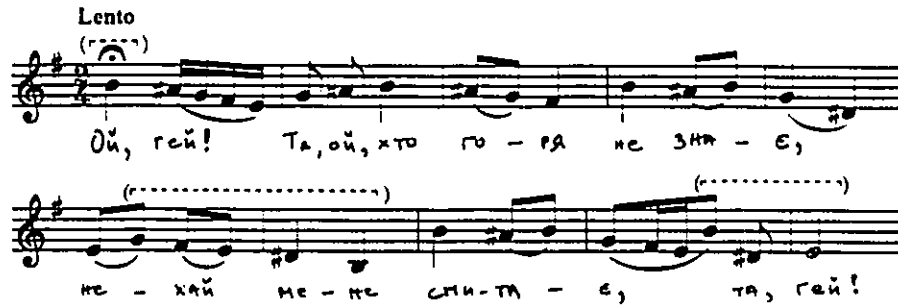
...in Ukrainian song a characteristic melodic turn in the minor mode is often made use of—namely, the descending stepwise motion toward the leading note, where the motion is arrested or continued by a downward leap of a third to the fifth degree of the mode. (p. 50) ¹⁸²

This melodic turn occurs in bars 6-7 of this Ukrainian song.

¹⁸¹С ладовой стороной очень часто связаны черты национального своеобразия мелодии. Так, например, для русской народной мелодики...характерны черты ладовой переменности (особенно того ее типа, который основан на сопоставлении мажора и параллельного минора), пентатоники..., элементы миксолидийского, дорийского, фригийского ладов, натуральный минор. В украинской народной песне часто встречается гармонический минор, а также гармонический минор с повышенной IV ступенью. Этот последний лад характерен и для венгерской народной музыки, равно как (наряду с другими ладами, содержащими увеличенные секунды) и для музыки ряда восточных народов.

¹⁸²...для украинской песни весьма характерно, в частности, использование определенного оборота гармонического минора, именно нисходящего поступенного движения к вводному тону с остановкой на нем или с переходом на терцию вниз к квинтному тону лада.

Example 40: Ukrainian Song from the Collection *Ukrainian Folk Song* (1936)



Mazel' points out several other melodic peculiarities characteristic of Ukrainian folk melodies: "...for example the final cadence with a downward leap of a sixth to the leading tone that resolves; or the beginning with a held high fifth degree (with the exclamation in the text), a beginning which is also characteristic of Russian song." (p. 50-1)¹⁸³

Mazel' points out that no single aspect of melody, as for instance the modal aspect, contributes to its national character, "but rather the whole complex of aspects (...), even though the role of modes and modal turns in this complex of aspects, in the majority of cases, is great, for a mode in itself represents the historical summary of the *basic organization* of sounds of a musical work." (p. 51)¹⁸⁴ This view echoes Asafiev's contention that "the prevalence...of one interval in some period or genre (such as the sixth in some types of nineteenth-century opera)...is the result of intonational selection."¹⁸⁵ In a way this similarity underscores Mazel's and Asafiev's different views of 'intonation,' for Asafiev above all sees 'intonation' as being specific to the

¹⁸³ "...например заключительный каданс с падением на сексту к вводному тону и его последующим разрешением или начало с долгого высокого квинтового тона (при восклицании в тексте), начало, характерное и для русской песни."

¹⁸⁴ "...а в целом комплексе признаков (...), но роль лада и типичных ладовых оборотов в этом комплексе в большинстве случаев бывает очень велика, ибо лад представляет собой исторически складывающуюся...основу организации звуков музыкального произведения."

¹⁸⁵ McQuere, 237.

"environment and era that created it."¹⁸⁶ Mazel' ascribes historical properties to modes, while Asafiev does the same for intervals—these two elements being the basis on which each in turn differentiates intonation in speech and music. Their historical views of these elements really refer to 'intonations' that are characteristic of a historic period or genre—modes and intervals being only parts of such 'intonations.'

Mazel's discussion of modes proceeds to the consideration of the expressive character they impart to melody. The analytical understanding of this expressive character, according to him, must take into account two properties:

- 1) the modal *tension* of the sounds and intervals of a melody, the relationship between the modally stable and unstable sounds, the degree of gravitational intensity of one or the other sound in, or segment of a melody; 2) the modal *coloration* (the modal hue) of melody—brighter (major) or darker (minor). (p. 51)¹⁸⁷

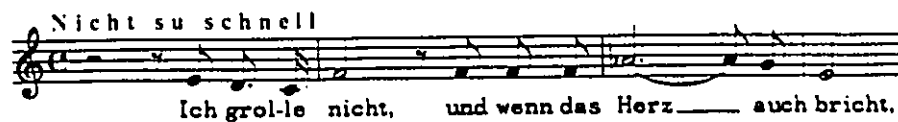
Regarding the first property contributing to the expressive character of modes, Mazel' states "that amid the many means which contribute to the intensification of tension, the role of modal means is prominent." (p. 51)¹⁸⁸ To illustrate this he cites several examples, one of which is the opening phrase of Schumann's *Dichterliebe* No. 7 ("Ich grolle nicht").

¹⁸⁶ibid.

¹⁸⁷1) ладовая напряженность звуков и интервалов мелодии, соотношение ладово-устойчивых и неустойчивых звуков, степень интенсивности тяготений тех или иных звуков или отрезков мелодии; 2) ладовая окраска (ладовый колорит) мелодии—более светлая (более мажорная) или более темная (более минорная).

¹⁸⁸"...что среди различных средств, передающих усиление напряжения, видную роль играют и ладовые средства."

Example 41: R. Schumann, *Dichterliebe* No. 7 (Op. 48), "Ich grolle nicht"



His comments about this example are that "the highest note occurs at the same time as the one with strongest modal relationship, with most gravitational intensity. Essential to the expressiveness of the melody is that this note (lowered scale degree six) imparts to the major elements of the minor mode, creating a 'note of bitterness.' " (p. 51) ¹⁸⁹ The altered scale degree six (producing a mode mixture) is, in this instance, a perfect example of what Mazel' calls 'gravitational intensification.' Scale degree six in major lacks the 'gravitational intensity' that the melody requires at this point, and that the minor scale degree six provides.

In discussing the second property of modes which contributes to the expressive character of melody, Mazel' mentions the coloration of the pentatonic mode. He considers modal coloration to be based on intervals between individual scale degrees, stating "that pentatonic melodies (and melodic turns), are devoid of sharp semitone tensions. . . The combination of calm and brightness are the basic expressive possibilities of the pentatonic mode." (p. 51) ¹⁹⁰

Mazel's discussion of modes per se concludes with a reference to the role of change of mode in melodic development.

¹⁸⁹ "...самый высокий звук является вместе с тем и наиболее острым в ладовом отношении, наиболее интенсивно тяготеющим. Существенно для выразительности мелодии, что этот звук (VI низкая ступень) вносит в мажорную мелодию элемент минора, как бы «ноту горечи».

¹⁹⁰ "что пентатонные мелодии (и мелодические обороты), лишены острых полутоновых тяготений. . . Сочетание же покоя и просветленности—основная выразительная возможность мажорной пентатоники."

"Melodic *development*, even essential change of a musical idea, is often (and sometimes wholly) based on modal, tonal, and modal-harmonic means." (p. 53) ¹⁹¹

This idea is self-evident to a certain extent. Mazel's mention of it is however necessary in a discussion of the topic of modes and their context in an integrated analytical consideration of melody.

The second important topic Mazel touches on in his discussion of the modal and modal-harmonic aspects of melody is intervals and intervallic formations. He begins this topic by stating that "modal relationships are often defined by one or another characteristically expressive melodic moment." (p. 53) ¹⁹² Mazel understands intervals to be examples of expressive melodic moments. The term 'moment' is traditional in Russian theory and was first defined by Yavorsky. McQuere explains Yavorsky's understanding of the concept of 'moment.'

One part of a systemic or modal gravitation, a "moment." The term also appears as "modal moment" [ladovyi moment], in which sense it means something very similar to "function," that is, the role a tone or sonority plays in relation to the mode. The "collective moment" [soedinnnyi moment] is the combination of all the unstable tones of a mode. ¹⁹³

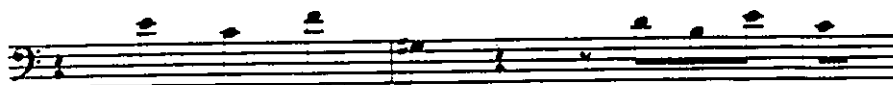
Mazel's use of the term 'moment' in the context of his discussion of intervals includes aspects of this definition. It is important not to confuse the Russian use of the term 'moment' with the one that in the West has been applied to form—i.e. moment form as for instance understood by Karlheinz Stockhausen: "Forms in which the concentration on the now—on each now—makes, as it were, vertical slices which cut

¹⁹¹ Развитие мелодии, даже коренное, качественное изменение музыкального образа нередко в значительной мере (а иногда всецело) основано на ладовых, ладотональных, ладогармонических средствах.

¹⁹² "Ладовые соотношения нередко определяют те или иные характерно-выразительные моменты мелодии."

¹⁹³ McQuere, 380.

Example 43: J.S. Bach, *Fugue in A Minor, WTC II, 20*
(BWV 890)



This interval and its inversion (i.e. the augmented second) occur characteristically between the scale degrees six and seven of the harmonic minor mode. In Mazel's nomenclature these scale degrees would be described as full of 'gravitational intensity,' and in Yavorsky's theory of modal rhythm, as elements in the 'collective moment' (i.e. "the combination of all the unstable tones of a mode").

Mazel' notes that "intervals also possess some expressive possibilities that are independent of their specific position in a mode." (p. 55) ¹⁹⁷ He links such expressive possibilities to the degree of consonance or dissonance engendered by an interval.

... regardless of the position in a mode in which such intonations occur, the consonance of an octave intonation and the... harmonic implication of the sixth intonation greatly differentiate them from the near to them in size, dissonant intonation of a major seventh. (p. 55) ¹⁹⁸

Mazel' considers this differentiation to be based on, above all, expressive criteria.

To conclude his discussion of the topic of intervals, Mazel' mentions two common intervallic formations: 'hidden' (i.e. filled out) intervals, and 'connective intonations' (i.e. compound melody). He defines 'hidden' intervals thus:

An interval which is referred to in this manner is spanned though also

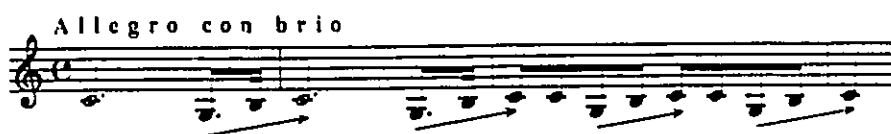
¹⁹⁷ "что интервалы обладают некоторыми выразительными возможностями также и независимо от своего конкретного ладотонального положения."

¹⁹⁸ "...консонантность октавной интонации и... гармоническая наполненность секстовой интонации весьма отличают их от близкой им по величине диссонантной интонации большой септималь при любом ладовом положении этих интонаций."

close, but not neighbouring (not adjacent) in the sense of a succession in time of sounds in a melody... (p. 55) ¹⁹⁹

Among the several examples he gives is the *Allegro con brio* theme of the opening Movement of Beethoven's *Symphony No. 1 (Op. 21)*.

Example 44: L. van Beethoven, *Symphony No. 1 in C Major*
(Op. 21), I



The 'hidden' interval is the perfect fourth G3-C4. Mazel' points out that "contextually, hidden intervals do not have any less significance in the expressiveness of a melody than explicit ones do." (p. 55) ²⁰⁰

His discussion of intervals ends with a reference to 'connective intonations,' which is a term first coined by Yavorsky. ²⁰¹ Mazel' defines the phenomenon thus:

Often modal relationships can unite melodic moments occurring over comparatively longer spans. Thus, a modally unstable sound (for example the leading tone) can resolve into a stable one over several bars. (p. 55) ²⁰²

Several examples of 'connective intonations' are cited, one of which is the final cadence of the Theme and opening Variation (bars 6-9) from Beethoven's *Thirty-two*

¹⁹⁹Так называется интервал, образуемый хотя и близкими, но не соседними (не смежными) в смысле временной последовательности звуками мелодии...

²⁰⁰"скрытые интервалы имеют здесь не меньшее значение для выразительности мелодии, нежели интервалы явные."

²⁰¹McQuere offers the following definition for Yavorsky's understanding of this phenomenon: "An intonation whose second moment, its resolution, is delayed until after some intervening intonations." (380)

²⁰²Иногда ладовые связи могут объединять моменты мелодии, находящиеся на сравнительно большом расстоянии. Так, ладово-неустойчивый звук (например, вводный тон) может разрешиться в устойчивый через несколько тактов.

Variations in C Minor.

Example 45: L. van Beethoven, *Thirty-two Variations in C Minor* (WoO 80)



Mazel' connects the high $\flat A5$ in the top register (scale degree six) to the $G5$ three bars later, thus implying that it only resolves at the occurrence of that particular $G5$ (bar 9). His placement of the resolution in bar 9, rather than in bar 7 on the $G4$ following an octave transfer, seems to imply some form of prolongation of a pitch over intervening pitches. It does not necessarily imply the prolongation of a harmony over intervening harmonies, however, for in that case in the given example the Subdominant would be prolonged over the perfect cadence that follows. In this sense 'connective intonations' refer strictly to successive intervallic phenomena, and do not necessarily take into consideration the underlying functional harmonies.

The third topic that Mazel' touches on in his discussion of the modal and modal-harmonic aspects of melody is harmonization and ways in which it defines the function of notes in a melody. He opens his discussion of this topic by stating that

less frequent changes of harmony serve to give greater breadth to a musical thought. A single harmony is capable, to a certain extent, of unifying into a whole a melodic segment which comes under its influence. (p. 56)²⁰³

²⁰³более редкие смены гармонии служат более широкому дыханию музыкальной мысли. Одна гармония способна до некоторой степени объединить соответствующий ей отрезок мелодии в единое целое.

As an example, he cites the opening theme of the Allegro of Beethoven's *Leonore Overture*—a theme which is harmonized by a tonic pedal.

Example 46: L. van Beethoven, *Leonore Overture No. 3*
(Op. 72)



His comments on this example are as follows.

Thus the...eight-bar melody could have in itself been understood and harmonized as the melody of a period with an imperfect cadence at the end of bar four, and a perfect one at the end of bar eight. In such a case it would have sounded far more broken up, divided, less broad, than it does in the original, where the entire eight-bar melody is unified by a tonic pedal. (p. 56) ²⁰⁴

Mazel' regards harmony as one of the main elements of division in music. Its ability to divide musical ideas is countered by an equal capacity to unify them. Thus, in this Beethoven theme, harmony has a unifying effect which is caused, as Mazel'

²⁰⁴Так, мелодия...восьмитакта сама по себе могла бы быть понята и гармонизована как мелодия периода с половинным кадансом в конце первого четырехтакта и полным в конце второго. В этом случае она звучала бы гораздо более дробно, расчлененно, менее широко, чем в оригинале, где вся восьмитактная мелодия объединена одной тонической гармонией.

points out, mainly by the absence of divisive harmonic devices (i.e. cadences) in the harmonization.

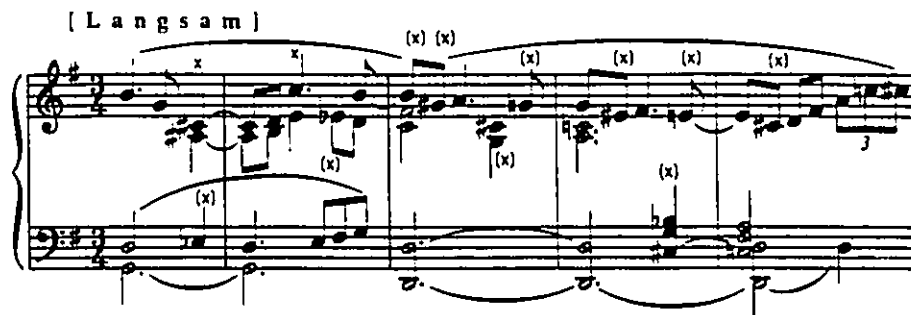
Another property of harmonization of a melody is its definition of the function of the notes of a melody.

...harmony often imparts to melody such relationships which do not directly follow from the modal implication of the sounds in a melody. With this is connected the gravitation of non-chord sounds toward those contained in a chord—above all, the gravitation of suspensions. (p. 57)²⁰⁵

Mazel' mentions suspensions (*zaderzhaniy*) as main examples of the gravitations of non-chord sounds toward those that are part of a chord. The Russian word *zaderzhaniy*, however, does not only refer to the suspension (i.e. a note that is prepared, suspended and resolved through descending melodic motion), but also to other dissonant harmonic phenomena that are generated by non-chord sounds—e.g. diatonic and chromatic neighbouring and passing notes. In an example he gives of a five bar excerpt from Wagner's *Tristan und Isolde*, the melody contains a lower chromatic neighbour (bars 1–2), an unprepared 6–5 suspension (bar 2), and a string of suspensions (bars 2–5) with chromatic lower neighbours preceding each resolution—all of which Mazel' refers to as *zaderzhaniy*. In the inner voices of the 'harmonization' there are chromatic passing and lower neighbour note motives which occur within a voice-leading framework of chromatic inflections of the tonic and dominant harmonies.

²⁰⁵... гармония часто создает в мелодии такие соотношения, которые непосредственно из ладового значения звуков мелодии не вытекают. Сюда относятся тяготения неаккордовых звуков к аккордовым, прежде всего тяготения задержания.

Example 47: R. Wagner, *Tristan und Isolde* (1865)



The only analytical insight Mazel' provides into the understanding of these five bars are two symbols (crosses) above the staff in bars 1 and 2, which draw the readers attention to the notes below them as examples of non-chord sounds that gravitate toward those that are part of a chord. He avoids pointing out other similar phenomena in this musical example (see bracketed crosses), seeming to suggest that the reader is more than capable of observing them alone.

Mazel' differentiates between the 'gravitational tension' imparted to melody by unstable tones of a mode, and that generated by a harmonization in which certain notes of the melody are not part of the supporting chords.

The tension of a suspension, as a rule, is sharper than that of an unstable tone of a mode that tends toward a more stable one: thus the leading tone in a melody, harmonized by a dominant triad, can be stopped on, concluding an important segment of a melody, as for instance a phrase—in which case the following phrase does not necessarily have to begin with scale degree one that would resolve the tension of the leading-tone; a suspension, on the other hand, "demands" prompt resolution in a moment which is near in time. (p. 57) ²⁰⁶

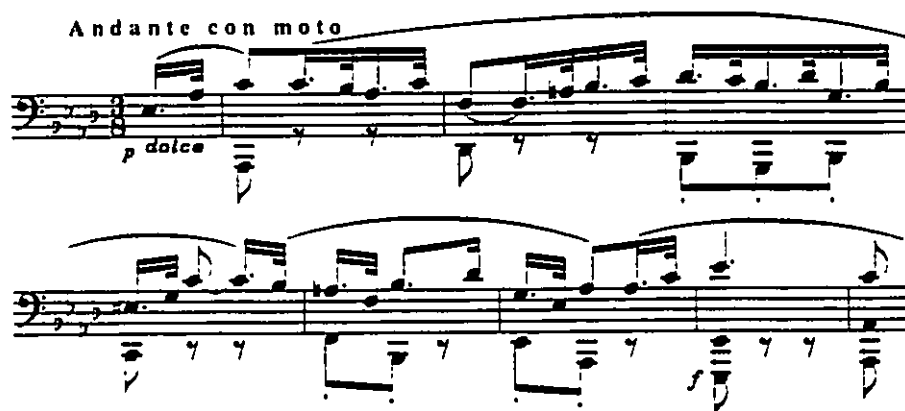
²⁰⁶ Тяготение задержания, как правило, острее, чем тяготение неустойчивого звука лада

One of the vital properties of suspensions are considered by Mazel' to be their expressive possibilities.

...the basic possibilities of suspensions are connected mainly with lyrical (in a broad sense) expressiveness—from sensitive “sighs” to fits of passion, from romantic “languor” to emotionally heightened, elated states.
(p. 57)²⁰⁷

However, these lyrical expressive qualities can also be achieved in the absence of such melodic devices. Mazel' cites the *Andante con moto* theme from Beethoven's *Symphony No. 5*, as an example of a melody that is devoid of suspensions, but in itself “represents nobly masculine, bright, objective lyricism.” (p. 60)²⁰⁸

Example 48: L. van Beethoven, *Symphony No. 5 in C Minor*
(Op. 67), II



к устойчивому: так, на вводном тоне, гармонизованном доминантовым трезвучием, возможна длительная остановка мелодии, завершающая ее значительный отрезок, например предложение, причем следующее предложение вовсе не обязательно должно начинаться с тонической прима, разрешающей тяготение вводного тона; задержание же, как правило, «требует» разрешения немедленно—в близкий по времени момент.

²⁰⁷...основные возможности задержаний связаны преимущественно с лирической (в широком смысле) выразительностью—от чувствительных «вздохов» до страстных порывов, от романтического «томления» до взволнованных, приподнятых состояний.

²⁰⁸«представляющие лирику благородно-мужественную, светлую, объективную.»

In connection with melodies that do not have suspensions, Mazel' discusses arpeggiating melodies that are based on one chord.

One of the examples he cites is 'the motive of the rainbow' from Wagner's *The Ring of the Nibelung*, which is an arpeggiating melody based on a tonic triad of G $\flat$ Major.

[illegible]

To conclude the discussion of the topic of harmonization and its role in defining the function of notes in a melody, Mazel' makes mention of the fact "that in many

²¹⁰ "мелодии с преобладанием движения по трезвучию весьма типичны для венских классиков (Гайдн, Моцарт, Бетховен) и Шуберта, а также Вагнера."

melodies a very important expressive role is played by different modal-harmonic colorations ("hues") of one or another harmonic motive, i.e. by harmonic variation." (p. 61) ²¹¹ He identifies three kinds of harmonic variations in the harmonization of a melody.

1. A short melodic motive is repeated—immediately after its first occurrence—with a new harmonization. . . 2. A short melodic motive is repeated, not immediately but at a distance, with a new harmonization. . . 3.

An entire melody, when repeated, receives a new harmonization. . . (p. 64) ²¹²

These three main examples of harmonic variation in the harmonization of a melody conclude Mazel's discussion of the topic of harmonization, as well as of the whole subject of modal and modal-harmonic aspects of melody.

His brief exposé on the subject of modal and modal-harmonic aspects of melody touches on those topics that Mazel' considers most relevant to integrated analysis. For this reason his treatment of the subject is by no means exhaustive. The most relevant topics, in Mazel's view, are modes—their national origins, colour, tension as engendered by particular scale degrees—intervals and their various formations, and harmonization and its effect on melody. Throughout his discussion of each topic, Mazel' is constantly preoccupied with the aspect of expressive possibilities.

"SECTION FOUR: Basic premises on the expressiveness of a melodic line" ²¹³

The previous section was concerned with modal-harmonic aspects of melody and their different expressive possibilities; this section discusses the melodic line and its

²¹¹ "что во многих мелодиях большую выразительную роль играет различная ладо-гармоническая окраска («перекраска») одних и тех же оборотов, т.е. гармоническое варьирование."

²¹² 1. Короткий мелодический оборот повторяется—сразу же после первого появления—с новой гармонизацией. . . 2. Короткий мелодический оборот повторяется с новой гармонизацией не сразу, а «на расстоянии». . . 3. Вся мелодия целиком получает при повторении иную гармонизацию.

²¹³ "§4. Основные предпосылки выразительности мелодической линии"

different expressive possibilities. Mazel' sees the expressiveness of a melodic line as related to three elements: direction of melodic motion, which can be ascending, descending, and also static, as in passages where a note is repeated; the relationship between motion by skip and stepwise motion; and the element of 'hidden polyphony' (i.e. compound melody) and hidden structures, such as scales, around which melody is sometimes constructed. These three elements Mazel' considers as the main premises for expressiveness of a melodic line. The first element of direction of melodic motion, he characterizes thus:

The expressiveness of a melodic line is based, above all... on the natural association of ascending motion with increase in tension, and of descending motion with decrease, and calm. (p. 64) ²¹⁴

This association of melodic motion with tension is further underlined in that

lower sounds are perceived as more 'heavy' and 'massive', while higher ones, as more 'light' and 'airy.' The reasons for this are simple: a low sound is richer in overtones. (p. 64) ²¹⁵

On the basis of these psycho-acoustic phenomena, Mazel' draws a conclusion about the expressive possibilities of direction of melodic motion.

It is natural that in melody, as a rule, there occur *changes in direction of motion*, alternating ascending and descending motions, which commonly correspond to increases and decreases in tension that impart to melody its feeling. (p. 65) ²¹⁶

²¹⁴Выразительность мелодической линии опирается прежде всего... на естественную связь восходящего движения с нарастанием напряжения, нисходящего—со спадом, успокоением.

²¹⁵низкие звуки воспринимаются как более «тяжелые», «массивные», высокие—как более «легкие», «воздушные». Причины этого просты: низкий звук богаче обертонами.

²¹⁶Естественно, что в мелодии, как правило, происходят смены направления движения, чередования восходящего и нисходящего движения, что обычно соответствует усилениям и ослаблениям напряжения передаваемой мелодией эмоции.

It is worth noting that Mazel' links the idea of expressive possibilities with musical tension. This idea, especially as it relates to direction of melodic motion, is further developed in Section Six of this Chapter, in which the conception of melodic waves is developed. Mazel', in general, associates expressive possibilities of different elements of music with musical tension. Hence, harmony and rhythm, like melody, have the capacity to effect increases and decreases in musical tension.

Mazel' gives an instance of direction of melodic motion that in itself does not have many expressive possibilities, but is dependent on other musical elements for expression. This type of melodic direction is static repetition.

As development of a melodic line as such, in that case, is reduced almost to nothing (the line itself being in large part passive), the expressive possibilities of other musical elements come to the fore: rhythm, tempo, mode, harmony, etc. (p. 65) ²¹⁷

Mazel' points out the different expressive possibilities of slow and fast tempos that come into play when melodic direction is limited to a single pitch.

In slow and at the same time more or less steady motion, the repetition of a sound creates an emotional impression which is best described by the word *monotony*. . . On the other hand, *quick* repetition of a sound commonly creates the impression of energy, which might be lacking in the approach to it, i.e. in the motion of the melodic line itself. (p. 65-6) ²¹⁸

Similar kinds of expressive qualities are imparted to repeated sounds by the major and minor modes. Repetition in itself has the effect of emphasizing the changes in pitch that precede and follow a repeated sound.

²¹⁷Поскольку развитие мелодической линии как таковой в этом случае почти сводится на нет (сама линия предельно пассивна), на первый план выступают выразительные возможности других элементов музыки: ритма, темпа, лада, гармонии и пр.

²¹⁸В медленном и притом более или менее равномерном движении повторение звука создает эмоциональное впечатление, лучше всего передаваемое словом **МОНОТОНИЯ**. . . Наоборот, **быстрая** репетиция звука обычно создает впечатление энергии, как бы не находящей выхода во вне, т.е. в движении самой мелодической линии.

For instance, in the opening of Beethoven's *5th Symphony*, the repetition of a sound, from one point of view, has a self-contained expressive meaning as an element of the 'motive of fate;' and from another point of view, it vividly sets apart the assertive and 'affirmative' descending third intonation that is essential to that motive. No other type of anacrusis to the fourth sound could bring out there the *significance* of that intonation.

(p.66) ²¹⁹

Mazel's use of the word intonation in this instance is noteworthy. He does not use this word in a general sense which Asafiev ascribed to it—i.e. "any kind of human communication by means of sound" (see Section Two of this chapter)—but rather in a more specific sense in which Yavorsky understood the conception of intonation—i.e. as an intervallic phenomenon.

The second element which Mazel' views as a main premise for the expressiveness of a melodic line is the relationship between motion by skip and stepwise motion. He views this premise as

being based on the relationship between stepwise motion and broad movements, skips. The basic melodic line appears as *stepwise* motion... Such motion has the capacity to create an impression of continuity, smoothness... Broad melodic movements, skips, often sound more tense, often being set apart in a melodic line... (p. 67) ²²⁰

Along with these expressive possibilities, Mazel' links properties of musical development with the two types of motions.

²¹⁹Так, например, в начале 5-й симфонии Бетховена репетиция звука, с одной стороны, имеет самостоятельное выразительное значение, как элемент «мотива судьбы», с другой же стороны, она ярко оттеняет существенную для этого мотива утверждающую и «повелительную» интонацию нисходящей терции. Никакая иная форма затакта к четвертому звуку не могла бы здесь столь подчеркнуть значимость этой интонации.

²²⁰основана на соотношении плавного движения и широких ходов, скачков. Основной мелодической линии является поступенное движение... Такое движение способно создавать впечатление непрерывности, плавности... Широкие ходы мелодии, скачки звучат обычно более напряженно, более резко выделяются в мелодической линии...

... a skip embodies a moment of tension, and stepwise motion, a moment of development (especially typical in this sense is the relationship between an *ascending* skip and the *descending* stepwise motion that follows it...) (p. 69) ²²¹

An excerpt from the Andante theme from Chopin's *Nocturne, Op. 9 No. 2*, illustrates such properties of tension inherent to a skip, and the corresponding development (i.e. resolution through elaboration) inherent to stepwise motion.

Example 50: F. Chopin, *Nocturne (Op. 9, No. 2)*



To counter these expressive possibilities of stepwise motion and motion by skip, Mazel' points out that the two expressive possibilities are sometimes reversed.

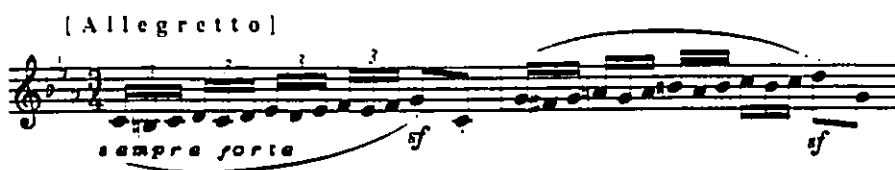
Broad movement, especially when consonant, is capable in certain circumstances of creating the impression of space, "air," calm encompassing of a broader "expanse;" the feeling of intonational tension, often associated with a broad interval, can then assume secondary importance. On the other hand, stepwise motion that abounds in repeated sounds (or the returns to such sounds) can often create a feeling of greater intensity of melodic motion, greater "smoothness," "tightness," and accordingly, tension of the melodic shape. (p. 67) ²²²

²²¹...скачок воплощает момент напряжения, а плавное движение—момент разрядки (особенно типично в этом смысле соотношение восходящего скачка и последующего нисходящего плавного движения...)

²²²Широкий ход, особенно консонирующий, способен в некоторых условиях создавать впечатление простора, «воздуха», спокойного охвата большого «пространства»; ощущение же интонационного напряжения, обычно связанное с широким интервалом, может при

As an example of this contrasting expressive possibility of the two types of motion, Mazel' cites the Allegretto variation from Beethoven's *Thirty-two Variations in C Minor*.

Example 51: L. van Beethoven, *Thirty-two Variations in C Minor* (WoO 80)



He points out that in this example "the stepwise ascending motion creates tension, while in response the descending leap of a fifth [creates] development." (p. 69) ²²³ This is a contrasting expressive possibility to the primary one in which the stepwise motion serves to resolve the tension created by the skip.

The process of tension and resolution in alternating types of melodic motions can occur over an extended range.

"Often the preparation of a skip, the skip and its completion can at the same time form a relatively long melodic phrase." (p. 70) ²²⁴

As an example of this, Mazel' refers to the opening theme of Mozart's *Symphony in G Minor* (K. 550). This theme was discussed in Section Eight of Chapter Two (Example 34), in the context of a presentation of criteria for establishing similarity between

этом отступать на второй план. И наоборот: поступенное движение с обилием повторений звуков (или возвратов к тем же звукам) может иногда создавать ощущение большой интенсивности мелодического движения, большой «плотности», «тесноты», а следовательно, и напряженности мелодического рисунка.

²²³ "поступенное восходящее движение создает напряжение, а отвечающий ему квинтовый скачок вниз—разрядку."

²²⁴ "Нередко подготовка скачка, скачок и его заполнение образуют вместе более или менее длительную мелодическую фразу."

adjacent structures.²²⁵ Here the theme is used to illustrate how the preparation, the skip, and its completion, can occur over a relatively extended range.

The idea of completion of a skip leads Mazel' to a more general understanding of both the skip and the completion.

The understanding of a skip as a separate melodic motion is replaced in such a new understanding by a more general conception of *quick encompassing of a broad range*. . . The understanding of a "completion of a skip" is accordingly replaced by a concept of slower "conquering"—*elaboration* of the stated broad range or its part. (p. 71) ²²⁶

The completion, of course, is here associated with stepwise motion.

The third element which Mazel' views as a premise for the expressive possibilities of a melodic line, is 'hidden polyphony' (i.e. compound melody) and hidden structures, such as scales, around which melody is sometimes constructed. Most of these 'hidden' phenomena combine the two types of motions. In this combining a vital psycho-acoustic phenomenon is at work.

... in a melodic skip can arise a certain illusion, as if the preceding sound continues sounding with the last one—i.e. as if the melodic line is split

²²⁵The whole of Example 34 is reprinted here again.

Example 34: W.A. Mozart, *Symphony in G Minor (K. 550)*, I



²²⁶Понятие скачка, как отдельного хода мелодии, заменяется при таком новом понимании более общим понятием быстрого охвата широкого диапазона. . . Понятие же «заполнение скачка» заменяется соответственно понятием более медленного «освоения» — распевания охваченного широкого диапазона или его части.

into two lines. (p. 73) ²²⁷

This phenomenon is most at work in the following melodic constructions.

If a sound is connected by skip to another sound which is adjacent in pitch and is abandoned by a recent skip, then such two sounds form a connective intonation of a second that can become the resultant moment of further development of a hidden voice. (p. 73-4) ²²⁸

'Connective intonations' were referred to in the previous Section (see Example 45), but in the present situation they are realized through a 'hidden' voice. Mazel' cites a typical model to illustrate the situation.

Example 52: Model of a 'hidden' voice generating a 'connective intonation'



An example of this typical melodic construction is cited from Beethoven's *Andante* theme of *Sonata for Piano No. 19 (Movement I)*.

Example 53: L. van Beethoven, *Sonata for Piano No. 19 in G Major (Op. 49, No. 1), I*



²²⁷...при мелодическом скачке может возникнуть некоторая иллюзия, будто предшествующий звук продолжает звучать вместе с последующим, т.е. будто мелодическая линия как бы расщепляется на две линии.

²²⁸Если скачком взят звук, смежный по высоте со звуком, недавно покинутым скачком, то эти два звука образуют соединительную секундовую интонацию, способную стать исходным моментом дальнейшего развития скрытого голоса.

The 'hidden' voice that generates the 'connective intonations' is indicated with vertical lines above and below the staff.

Mazel' regards stepwise motion as basic to a 'hidden' voice.

"It is natural that stepwise motion, as a rule, predominates in a hidden voice to a greater degree than in a real one." (p. 74) ²²⁹

This is evidenced by melodies which are based around scales. Mazel' cites one such melody from Chopin's *Mazurka (Op. 67 No. 4)*, and offers an analytical reduction of the descending, stepwise 'hidden' voice.

Example 54: F. Chopin, *Mazurka (Op. 67, No. 4)*: reduction of 'hidden' voice

The image shows a musical score for F. Chopin's Mazurka (Op. 67, No. 4). It consists of four staves. The top staff is labeled 'Moderato animato' and 'mf'. The second staff is labeled 'rubato'. The third staff is labeled 'ritmico'. The fourth staff shows the reduction of the 'hidden' voice, with vertical lines connecting notes across the staves.

With this brief discussion of 'hidden' voices Mazel's presentation of the basic premises on the expressiveness of a melodic line is concluded. His basic conception is centred around melodic motion—ascending, descending, stepwise, and by skip—and its associated expressive possibilities. 'Hidden' voices combine the last two kinds of melodic motions to generate 'connective intonations' on several levels.

²²⁹ "Естественно, что в скрытом голосе поступенное движение, как правило, преобладает в еще большей степени, чем в реальном."

“SECTION FIVE: Some simpler types of intonation” ²³⁰

In this brief section Mazel' discusses the most elementary type of intonation, the repetition of a sound. The expressive possibilities of this intonation were discussed in the previous section, while here attention is devoted to its most common manifestations.

The most elementary type of intonation is referred to as *elaboration* of one sound, i.e. its repetition and directed return to it after departure to other sounds (which in the simplest case are adjacent). (p. 75) ²³¹

Mazel' considers such elaboration of a sound so arresting that in this process “the elaborated sound becomes a *support*, and the adjacent ones *tend toward this support*.” ²³² Such a melodic phenomenon has resulted through the development of the musical language in modally stable sounds like the tonic and dominant.

Many ancient melodies mainly consist of elaboration of a supporting tone... As the completion of a melody is naturally connected with an intonational cadence, such melodies often contain at the end—after the elaboration of the supporting sound—descending motion, with which the lowest sound, ending the melody, gradually acquires the significance of a second (concluding, final) support... Acoustical premises make the fifth the most natural interval between the high and low supports. On that basis, the formation of “the fifth framework” of many modes is closely related to the described, elementary type of intonation: the affirmation and elaboration of a high support with a final descent to the lower one. (p. 75–6) ²³³

²³⁰“§5. Некоторые простейшие типы интонирования”

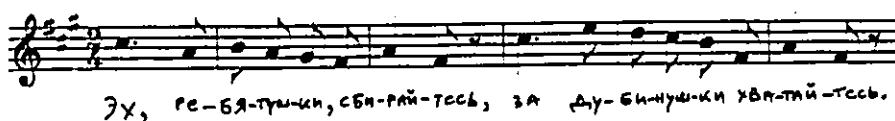
²³¹Наиболее элементарный тип интонирования—это так называемое опевание одного звука, т.е. его повторение и постоянное к нему возвращение после отклонения к другим (в простейшем случае смежным) тонам.

²³²“опеванный звук превращается в опорный, а смежные тоны—в тяготеющие к опоре.”

²³³Многие старинные напевы состоят преимущественно из опевания опорного тона. Поскольку же... завершение мелодии естественно связывается с интонационным спадом,

Mazel' concentrates his attention on folk songs as a historical basis of early development of the tonic and dominant phenomena. Among the numerous examples he cites of Russian songs that contain an elaborated dominant (or "high support") and tonic (or "low support") is a melody from a *Collection of Folk Songs* by Lopatin and Pokunin.

Example 55: Russian Song from *Collection of Folk Songs* by Lopatin and Pokunin

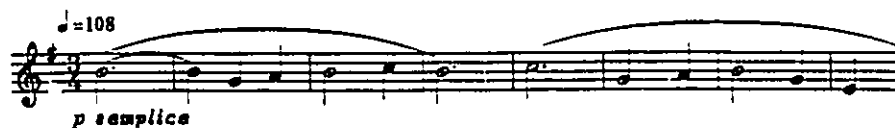


Here, the “high support”—the note which begins the melody, and to which the melody repeatedly returns—is C#, the dominant of the F# Minor tonic key. Accordingly, the final note—the “low support,” and point of arrival—is the tonic F#.

To conclude this section, Mazel' cites several examples of themes from the classical repertoire in which appear the elementary intonations of an elaborated dominant that descends to a tonic. One of the cited examples is a theme from the opening movement of Shostakovich's *Symphony No. 10*.

такие напевы часто содержат в конце—после опевания опорного звука—нисходящее движение, причем более низкий звук, заканчивающий напев, постепенно приобретает значение второй (конечной, завершающей) опоры...Акустические предпосылки делают одним из наиболее естественных интервалов между верхним и нижним устоями квинту. Таким образом, «квинтовый остов» многих ладов сформировался в тесной связи с описанным элементарным типом интонирования: утверждением и опеванием верхнего устоя с последующим спадом к нижнему.

Example 56: D. Shostakovich, *Symphony No. 10 in E Minor*
(Op. 93), I



“SECTION SIX: The melodic wave. Melodic development based on melodic waves. Melodic peaks and their functions. The culmination and its different types” ²³⁴

Mazel’s presentation of his understanding of melodic waves follows the headings in the title to this section. He begins by briefly explaining what a melodic wave is and what its role is in melodic development. From there he proceeds to a discussion of melodic peaks and what their role in melodic wave formations is. He concludes the presentation of his understanding of melodic waves with a discussion of culminations, which represent special kinds of melodic peaks.

Under the melodic wave is understood the sum total of a rise and fall, perceived as a single whole... A wave is a sort of natural unit of “melodic breathing.” (p. 79) ²³⁵

This broad definition includes the smallest melodic waves, as well as those of larger dimensions. Mazel’ cites two examples of melodic fragments that both come under this definition: a motive from Tchaikovsky’s *Symphony No. 6* (Op. 74), and the opening four bars of Chopin’s *Etude* (Op. 10, No. 2).

²³⁴ §6. Мелодическая волна. Волнообразное развитие мелодии. Мелодические вершины и их функции. Кульминация, ее различные типы”

²³⁵ Под мелодической волной понимается совокупность подъема и спада, воспринимаемая как единое целое... Волна—эта как бы естественная единица «мелодического дыхания».

Example 57a: P.I. Tchaikovsky, *Symphony No. 6 in B Minor*
(Op. 74), I



Example 57b: F. Chopin, *Etude (Op. 10, No. 2)*

Three systems of musical notation for a piano piece. The first system is marked 'Allegro' and 'p' (piano). The second system is marked 'cresc.' (crescendo). The third system continues the melodic and harmonic development. The notation includes complex fingerings and dynamic markings.

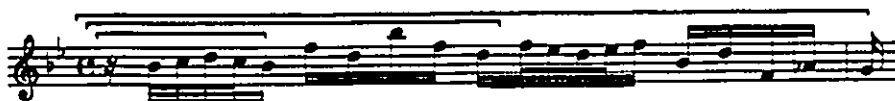
Both of these fragments constitute melodic waves, or “units of melodic breathing.” The association with breathing is noteworthy in that it echoes Georgy Conus’s metrotechnic “pulsating waves.” McQuere explains Conus’s conception of “pulsating waves” in the following way: “Conus formed the term from a combination of the idea of the

human pulse with the idea of a wave in physics. Essentially, it is the musical pulse, the steady 'beat' of time."²³⁶ In his metrotechtonic analyses, Conus used the "pulsating wave" as the basic unit of measurement, ascribing to it syntactic significance in the structure of a musical work. Mazel's understanding of waves as they relate to melody, however, is much more fluid and avoids altogether any notion of pulse or steady repetition. His reference to melodic waves as "melodic breathing," is a reference to breathing in an abstract sense that does not necessarily imply periodicity.

...a melodic wave does not appear as a musically syntactic notion, similar, for instance, to the idea of a period. Firstly, melody is far from always *divisible* into waves... Secondly, if for instance in the opening period of a work one has in mind a structure which, as a rule, is distinguishable with full certainty, then the opening wave of a melody can be understood in a narrower as well as a broader sense. (p. 81) ²³⁷

As an example of the difficulty in distinguishing which wave in an opening of a melody is the significant one for the period, Mazel' cites the opening of J.S. Bach's *Two-part Invention No. 14 in Bb Major*.

Example 58: J.S. Bach, *Two-part Invention No. 14 in Bb Major*
(BWV 785)



²³⁶ McQueere, 383.

²³⁷ ...мелодическая волна не является музыкально-синтаксическим понятием, подобным, например, понятию периода. Во-первых, мелодия далеко не всегда расчленяется на волну... Во-вторых, если, например, под начальным периодом произведения имеется в виду построение, которое, как правило, в каждом случае отличается полной определенностью, то начальная волна мелодии может пониматься в различных—более узких и более широких значениях.

Here the motives of the opening quarter note, half note, and of the bar could all be considered waves: i.e. there are three distinct waves in this melodic fragment. Hence the difficulty in distinguishing waves from the point of view of form. This is not however to say that waves have no role in musical development. Their function in musical development is mainly dependent on their overall structure and the way it relates to neighboring waves.

Since a wave contains a rise and a fall, it must contain a more or less distinctly expressed *moment of breakage*, i.e. *a peak*. . . In melodic development based on waves, the peaks of neighbouring waves, as a rule, do not coincide. Often the succession of peaks in a series of waves itself forms a wave; and in this way several waves of smaller length form a single wave of larger dimension. (p. 81) ²³⁸

As an example of a melody that exhibits such wave formations, Mazel' quotes an excerpt from Tchaikovsky's *Francesca da Rimini* (Op. 32).

Example 59: P.I. Tchaikovsky, *Francesca da Rimini* (Op. 32)



²³⁸Поскольку волна содержит подъем и спад, она обязательно содержит и более или менее ясно выраженный переломный момент, т.е. вершину. . . При волнообразном развитии мелодии вершины соседних волн, как правило, не совпадают. Нередко последовательность вершин ряда соседних волн сама образует волну, и, таким образом, несколько волн малой протяженности образуют одну волну большего масштаба.

He states that in general "similar waves of sequential rising and falling—of all different variants—are characteristic in the melodika of some XIX Century composers, such as Wagner and Tchaikovsky." (p. 82) ²³⁹ He extends this reasoning further to link such sequential wave formations with later stages in the development of the musical language.

Though appearing very simple in their means, such waves were formed at a comparatively late stage in the development of musical thought: such waves are not characteristic of the simpler intonations of ancient melodies.
(p. 82) ²⁴⁰

Hence the elaboration of a high note in ancient melodies and Christian chants, while it may contain basic wave formations of rises, peaks and falls, will never contain the sort of sequential wave formations that the melodies of some Romantic composers do.

Mazel' also discusses a *contrary* melodic wave which instead of a rise, a peak, and a fall, contains a fall, a trough, and a rise.

Admittedly, in consequence of the more natural association of the *completion* of a melodic thought ("melodic breathing") with a fall instead of a rise, the importance of such a wave is far smaller than that of the common one...when a contrary wave is clearly realized in a comparatively longer span, it is invariably perceived as a less stable, less complete structure than a common wave, and as a rule, is not maintained in repetition (an instance is the second phrase of a period with a repeated structure).
(p. 82-3) ²⁴¹

²³⁹Подобные волны секвентных нарастаний и спадов—в самых различных вариантах—характерны для мелодики некоторых композиторов XIX века, например Вагнера, Чайковского.

²⁴⁰Кажущиеся весьма простыми по своим средствам, такие волны сложились, однако, на сравнительно высоком этапе развития музыкального мышления; старинным напевам, простейшим типам интонирования такие волны не свойственны.

²⁴¹Однако значение такой волны много меньше, чем обычной, вследствие того, что

As an example, Mazel' quotes a theme from Emil Waldteufel's *Waltz* ("The Song of Birds").

Example 60: E. Waldteufel, *Waltz* ("The Song of Birds")



The second phrase of the quoted melody (bars 8–15) is a contrary wave with a final descent which displaces the uniform rise (preceded by a fall) of the contrary wave of the opening phrase (bars 1–8). This change reflects what Mazel' regards as the natural melodic tendency for descent in melodic completion.

Culminations are the last topic Mazel' discusses in this section. A culmination is the highest peak of a melodic wave, and is an important element both structurally and in terms of expression. Because a culmination necessarily implies a peak, it is restricted to common (i.e. not contrary) waves.

Very essential to the expressiveness of a culmination is the approach toward it, for a culmination draws its energy above all from the motion to it... There exist two *ways of reaching* culminations: 1) a culmination is arrived at by stepwise motion and 2) a culmination is reached by a broad

завершение мелодической мысли, «мелодического дыхания» гораздо естественнее сочетается со спадом, нежели с подъемом... когда обращенная волна реализуется в чистом виде на сравнительно большом протяжении, она все равно воспринимается, как конструкция менее устойчивая, менее завершенная, нежели обычная волна, и, как правило, не сохраняется при повторении построения (например, во втором предложении периода повторной структуры).

skip. (p. 83) ²⁴²

The expressive possibilities of these two melodic motions were discussed in Section Four, where Mazel' connected stepwise motion with continuity and steadiness, and motion by skip, with tension. These characteristics figure prominently in the two different ways of reaching a culmination.

Stepwise motion toward a peak can signify the absence of obstacles, a path without complications, motion as if by inertia...a culmination is conquered step by step, slowly swelling. (p. 83) ²⁴³

Among the many examples Mazel' gives of stepwise approaches to a culmination is a *Poco piu mosso* section from Tchaikovsky's *Symphony No. 5 (Op. 64)*.

Example 61: P.I. Tchaikovsky, *Symphony No. 5 in E Minor*
(Op. 64), II



Here the arrival at the high fortissimo D5 in the last bar appears very much as the final culmination of a "slow swelling." Such stepwise approach toward culminations is contrasted by motion by skips.

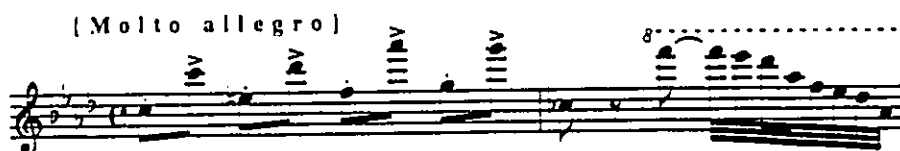
²⁴²Весьма существенна для выразительности кульминации подход к ней, ибо кульминация черпает свою энергию прежде всего в ведущем к ней движении...Существуют два пути достижения кульминации: 1) кульминация достигается поступенным движением и 2) кульминация берется широким скачком.

²⁴³Поступенное движение к вершине может означать отсутствие препятствий, движение как бы по инерции...кульминация завоевывается шаг за шагом, медленным нарастанием.

A culmination which is reached by a skip is most typical of composers with plastic, elegant, elastically moving melodia, such as Mozart and Chopin. If in such circumstances a skip produces the impression of a "graceful gesture," then the peak will appear as a vivid "flash." (p. 85)²⁴⁴

As an example of such a culmination Mazel' cites an excerpt from Chopin's *Prelude No. 18 in F Minor (Op. 28)*.

Example 62: F. Chopin, *Prelude No. 18 in F Minor (Op. 28)*



Beside discussing the different ways of arriving at culminations, Mazel' also takes into consideration the placement of a culmination in the overall melodic wave. He concentrates his attention on the ideal placement of a culmination.

Experience shows that the "optimal" placement of a culmination (from the point of view of the structural combination of dynamism and steadiness) appears in the position of the third quarter of a form, regardless of whether the thing considered is specifically the peak of a longer *melodic* wave or the culmination of a more general wave of increase and decrease of tension in an artistic whole... in the ideal, one has in mind the so called "golden section." (p. 87) ²⁴⁵

²⁴⁴Кульминация, взятая скачком, наиболее типична для композиторов с мелодикой пластичной, изящной, упруго-подвижной, каковы Моцарт, Шопен. Если скачок в таких случаях производит впечатление «грациозного жеста», то сама вершина кажется яркой «вспышкой».

²⁴⁵Опыт и показывает, что «оптимальным» положением кульминации (с точки зрения сочетания динамичности и уравновешенности конструкции) является положение в треть ей четверти формы, независимо от того, идет ли речь специально о вершине протяженной мелодической волны или о кульминации более общей волны нарастания и спада напряжения в художественном целом... в идеале же имеется в виду так называемая точка «золотого сечения».

Mazel' goes on to explain the ideal proportion that is the golden section.

The first divides the whole in two parts, so that the smaller part relates to the larger, the way the larger relates to the whole. Designating the whole as c , the larger part as x , the smaller accordingly as $c - x$, we get the proportion: $\frac{c-x}{x} = \frac{x}{c}$. Solving the quadratic equation we find that x relates to c : $x = -\frac{c}{2} \pm (\sqrt{5} - 1)$. Approximately $x = 0.62c$... The golden section in eight bars occurs on the downbeat of the sixth bar, and in sixteen bars, on the downbeat of the eleventh bar. (p. 87) ²⁴⁶

One of the examples of a melody with a culmination that occurs at the precise point of the golden section, is an opening theme of the Adagio grazioso from Beethoven's *Piano Sonata No. 16 (Op. 31, No. 1)*.

Example 63: L. van Beethoven, *Sonata for Piano No. 16 in G Major (Op. 31, No. 1), II*



The theme being eight bars long, the *sf* A6 in the first beat of the sixth bar is the point of the golden section. In a remark concluding the discussion of the golden

²⁴⁶Последняя делит целое на две такие части, что меньшая часть так относится к большей, как большая часть относится к целому. Обозначая целое через c , большую часть через x , меньшую соответственно через $c - x$, получим пропорцию: $\frac{c-x}{x} = \frac{x}{c}$. Решая квадратное уравнение, обнаружим, что x несоизмерим с c : $x = -\frac{c}{2} \pm (\sqrt{5} - 1)$. Приблизительно $x = 0,62c$... Точка золотого сечения восьмитакта приходится на первую долю 6-го такта, шестнадцатитакта—на первую долю 11-го такта.

section, Mazel' points out, almost nationalistically, that "the first scientific work on the application of the principles of the golden section in music belongs to the Russian musicologist E. Rozenov, and was printed in year 1904." (p.87-8) ²⁴⁷

In presenting Mazel's conception of melodic waves and their properties, it is essential to point out its kinship with Ernst Kurth's notion of "dynamic waves." Admittedly, Kurth applied this notion to form, and not to melody, the way Mazel' does. However the idea behind both conceptions of wave phenomena is similar. Both theorists avoid ascribing rigid structures to waves. Mazel' is aware that waves are not necessarily present in all melodies and hence cannot be defined as musically syntactic structures like phrases or periods. Kurth's "dynamic waves"—i.e. "constituent waves" (Teilwelle), "reverberating waves" (Tiefenwelle), and "after waves" (Nachwelle)—were all considered by him only as descriptive analogies. ²⁴⁸

Besides this similarity in basic conception, there are several parallels in wave structures that both theorists identify. Kurth's "constituent waves" (Teilwelle) are shorter formal segments that link into larger "symphonic waves" (Symphonische Welle). ²⁴⁹ Mazel' identifies similar wave formations in which smaller melodic waves link sequentially to form larger ones. Kurth identifies formal tension discharges (Entladung) that are similar to Mazel's culminations. All these similarities between Mazel's and Kurth's conceptions of wave phenomena reflect the influence the German theorist had on Mazel', an influence that Mazel' readily acknowledges.

"SECTION SEVEN: Types of melodic motion" ²⁵⁰

This is the last section of this chapter in which Mazel' presents theoretical understandings of melody. Section Eight, which follows and concludes the chapter, applies the earlier presented conceptions to the analysis of four melodies from the classical repertoire, analysis of the sort that would be undertaken in the consideration of

²⁴⁷"первая научная работа о применении закона золотого деления к музыке принадлежит русскому музыковеду Э. Розенову и напечатана в 1904 году."

²⁴⁸Rothfarb, Lee., 191 n.5.

²⁴⁹ibid., 191.

²⁵⁰"§7. Типы мелодического движения"

melody in larger, integrated analyses. In the present section Mazel's discussion of types of melodic motion unifies aspects of melody discussed in previous sections. At the outset he tells the reader

We have acquainted ourselves with the basic elements of every melodic motion—rises, falls and the maintaining of a level, as well as central moments of motion, peaks and supporting points. Now we can look at melody in a broader way—we can examine the principles of melodic motion which are formed on the basis of the just mentioned basic elements. (p. 94) ²⁵¹

Mazel's approach in taking a broader view of melody is to classify different types of melodic motion according to "one definite criterion: the presence or absence of direction toward a goal in melody." (p. 95) ²⁵² This criterion leads him to distinguish between two kinds of melodies:

In one kind of melody activity appears mainly in... vividly expressed direction; melodic dynamism is connected with one or another way of reaching peaks, and is to a large extent concentrated in the culmination itself. In melodies of the second kind, motion is of a calmer, steadier character: culminations manifest themselves to a lesser extent (or are altogether imperceptible) and do not have such centralizing importance; melodic dynamism has a more "dispersed" character, i.e. it is equally distributed throughout a melody. (p. 95) ²⁵³

²⁵¹Мы ознакомились с основными элементами всякого мелодического движения—подъемом, ниспаданием и сохранением высоты,—а также с центральными моментами движения—вершинами и опорными точками. Теперь мы можем взглянуть на мелодию шире—можем исследовать закономерности мелодического движения, которые складываются на основе тех же только что упомянутых основных элементов.

²⁵²"...один определенный критерий: наличие или отсутствие целеустремленности в мелодии."

²⁵³В мелодиях одного рода активность проявляется по преимуществу в...ярко выраженной направленности; мелодическая динамика связана с теми или иными путями достижения вершины и в значительной мере концентрируется в самой кульминации. В мелодиях другого рода движение носит более спокойный, уравновешенный характер; кульминации выявлены в меньшей степени (или даже совсем неощутимы) и не имеют

Separating melody into these two broad divisions, Mazel' proceeds to classify different types of melodic motion that are most characteristic of each one. He firstly discusses the types of motion that are characteristic of the second kind of melody—the calmer, steadier melody that lacks strong culminations. Following this, he discusses types of melodic motion characteristic of the first kind of melody—the one that predominates in melodic peaks and centralizing culminations. The section concludes with a word about basic considerations that need to be taken into account in the analysis of melodic motion.

Mazel' considers *steadiness* to be the main trait of melodies that lack strong culminations. He links *steadiness* to the type of melodic motion.

It [i.e. *steadiness*] is the result of equally spaced rises and falls and their approximately equal ranges. Such balance is especially opportune in melodies of a peaceful, even passive character. (p. 95) ²⁵⁴

As a typical example of this kind of melody, the *Animato* Variation from Schumann's *Abegg Variations* (Op. 1) is cited.

Example 64: R. Schumann, *Abegg Variations* (Op. 1)



столь централизирующего значения; мелодическая динамика носит более или менее «распре-
доточенный» характер, т.е. равномернее распределена в мелодии.

²⁵⁴ Оно [т.е. уравновешенность] сказывается и в равнодлительности подъемов и спадов и в
приблизительном равенстве их диапазона. Особенно уместно такое равновесие в мелодиях
спокойного, даже пассивного характера.

This property of equality in length and range of rises and falls leads to melodic symmetry.

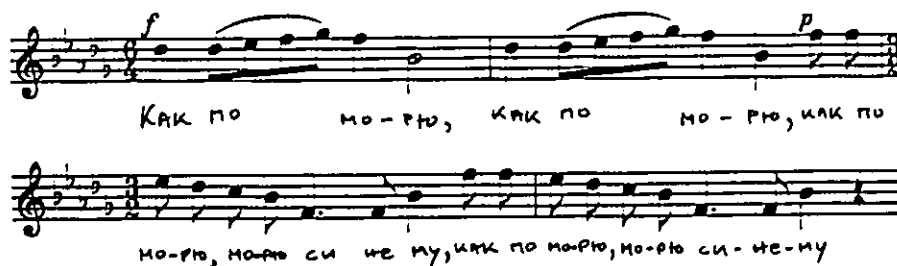
If the balance of an outline is based to a lesser or greater degree on a precise *reflection* of figures, the result is *symmetry* in melodic shape. (p. 96)²⁵⁵

Mazel' identifies three types of melodic symmetry: 1) symmetry based on contrary motion, 2) retrograde symmetry, and 3) inversional symmetry. He regards the first type of melodic symmetry as most frequent.

Common type of symmetry is based on contrary motion, i.e. (as in imitation) on the replacement of a given direction with the opposite one. Such kind of symmetry of shape can be found in folk songs of dance and playful character. (p. 96-7) ²⁵⁶

As an example of a melody in which motion is based on this type of symmetry, a Russian song ("As on the sea") from Balakirev's collection, is cited.

Example 65: Russian Song, "As on the sea," from a collection by
M.A. Balakirev



²⁵⁵Если равновесие рисунка основано на более или менее точном отражении фигур, то возникает симметрия мелодического рисунка.

²⁵⁶Обычный тип симметрии основан на противодвижении, т.е. (как и в имитации) на замене данного направления движения противоположным. С подобного рода симметрией рисунка можно встретиться в народных песнях плясового и игрового характера.

In it the ascending motion of the opening two phrases is replaced by descending motion, resulting in what Mazel' regards as a symmetrical structure.

The second type of symmetry Mazel' identifies is retrograde symmetry. He describes it as being

based on motion from the end to the beginning, and as such represents a "mirror" reflection of the succession of shape and rhythm, similar to "returning" or "crab-walking" imitations of polyphony. (p. 97) ²⁵⁷

Strict symmetry of this sort "can change a reflected part of melody to the point of not being recognizable." (p. 99) ²⁵⁸ As an example of this type of symmetry the subject and its retrograde from J.S. Bach's *Fugue in G Minor*, from *The Well-Tempered Clavier (Book I)*, is cited.

Example 66: J.S. Bach, *Fugue in G Minor, WTC I, 16*
(BWV 883)



The character of the two melodies is very different, causing them to almost appear unrelated, whereas in fact they are related in the highest degree.

The third type of symmetry Mazel' identifies is inversive symmetry.

[That] type [of symmetry] is based not on the successive reflection of "sound after sound", but on the permutation of intonations in the inverted

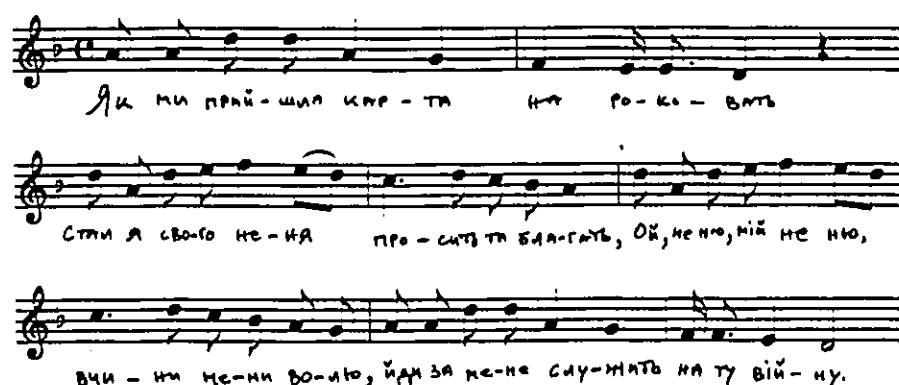
²⁵⁷ Основан на движении от конца к началу и представляет поэтому последовательное «зеркальное» отражение рисунка и ритма, подобное «возвратным» или «ракоходным» имитациям в полифонии.

²⁵⁸ «Может изменить отраженную часть мелодии до неузнаваемости.»

order, i.e. on the rearrangement of whole segments of melody without changes within them. (p. 97) ²⁵⁹

As an example of a melody that contains this kind of symmetry, Mazel' quotes a Ukrainian song.

Example 67: Ukrainian Song (source unknown)



The inner two phrases in this Ukrainian song are not exact, but rather approximate inversions of the outer ones.

Free symmetry is a principle of melodic motion that combines all the above three types of symmetries. Mazel' considers free symmetry as more frequent than strict symmetry.

The predominance of free symmetry is completely natural. The unfolding through time of the musical art is associated with forward motion, constant change and renewal. (p. 99) ²⁶⁰

²⁵⁹[Этот] тип [симметрии] основан не на последовательном отражении «звук за звуком», а на перестановке интонаций в обратном порядке, т.е. на перемещении целых участков мелодии без перемен внутри них.

²⁶⁰Преобладание свободной симметрии вполне естественно. Музыкальное искусство, развертываясь во времени, связано с движением вперед, с постоянным изменением и обновлением.

Mazel' argues that free symmetry serves as a vehicle for these qualities. Among the several examples of melodies he cites, in which motion is governed by free symmetry, is a *Vivace* theme from Sergey Prokofiev's *Romeo and Juliet* (Op. 64).

Example 68: S. Prokofiev, *Romeo and Juliet* (Op. 64)



The main symmetries that predominate in this melody are those based on contrary motion and inversion: the ascending scales are replaced by descending ones, and the intervals between the staccato eighth notes at cadence points are inverted.

The preceding discussion of symmetry emphasizes various melodic formations that are based on this principle. In Section Seven of Chapter Two, symmetry was examined from the perspective of dimensional thematic structures. Mazel's preoccupation with symmetry reflects the importance he ascribes to it as a principle that governs melodic formation.

Another principle of melodic motion he discusses in connection with the calmer type of melody that lacks centralizing culminations, is "surging" motion. He describes the melodic phenomenon thus:

One has in mind a smoothly curving line, suppressing direction toward a goal, "thickening" around a height or slowly, very gradually changing levels; the melody is at once moving and staying in place. (p. 102) ²⁶¹

²⁶¹ Имеется в виду плавно изгибающаяся линия, стремящаяся удержаться, «застыть» на

Mazel' points the reader to middle sections of Bach's fugues for such types of melodies. The influence of Ernst Kurth in Mazel's conception of "surging" motion, particularly in the identification of Bach's melodies as exemplifying such motion, is obvious. Mazel's description of "surging" motion is very similar to Kurth's conception of *Fortspinnung*, which the latter based on Bach's melodies. Kurth describes his understanding of *Fortspinnung* in *Grundlagen des linearen Kontrapunkts* (1917).

"Melodic *Fortspinnung* is... the technique of continuous transition... constantly forming anew out of melodic energy, a continued effect of motion."²⁶²

The "continued effect of motion" that Kurth identifies results in the type of melody Mazel' describes as "at once moving and staying in place."

Unlike Kurth, however, who limited *Fortspinnung* to Baroque melody, Mazel' extends his conception of 'surging' motion to later historical periods.

Surging motion sprang from new foundations in Romantic and especially Impressionist music... the relationship between melody and harmony comes to the fore: melody is perceived as something that wells forth from the harmonic complex, or otherwise melts in the color of its vivid resonance.

(p. 103) ²⁶³

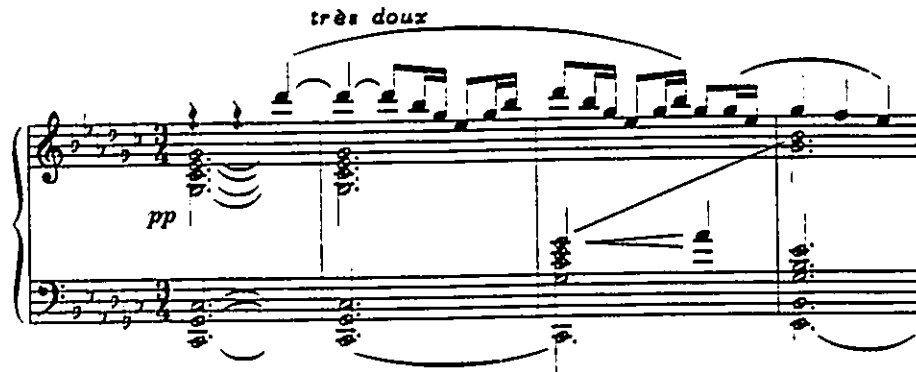
As an example, the opening of a Debussy *Prélude* "*La fille aux cheveux de lin*," is quoted.

своей высоте или медленно, с большой постепенностью изменять уровень; мелодия и движется и как бы пребывает на месте.

²⁶²"Die melodische *Fortspinnung* ist... eine Technik des fließenden Übergangs... stetige neuerformung aus der melodischen Energie, eine Weiterauswirkung der Bewegungen." [E. Kurth, *Grundlagen des linearen Kontrapunkts* (Bern: Verlag Krompholz & Co., 1917), 225.]

²⁶³На новой основе возникает парящее движение в романтической и особенно импрессионистской музыке... на первый план выходит соотношение мелодии и гармонии: мелодия воспринимается как нечто вытекающее из гармонического комплекса или, наоборот, растворяющееся в его колористически яркой звучности.

Example 69: C. Debussy, *Prélude*, "La fille aux cheveux de lin"
(1910)



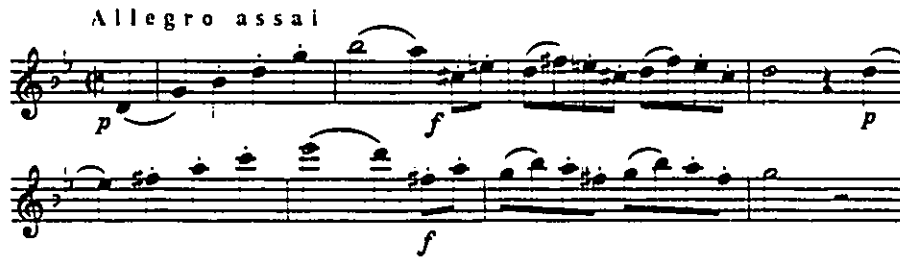
Mazel's discussion of melody that predominates in peaks and centralizing culminations presents principles of melodic motion that are most active in that type of melody. Among such principles he identifies progressive motion, melodic contradiction, and motion with steps. The last two were discussed in earlier sections as contrary motion and sequential melody. Their restatement in this section underlines their importance as principles of melodic motion in melodies that predominate in peaks and centralizing culminations. Mazel' sees progressive motion as central to this kind of melody.

The basis of every direction toward a goal, direction toward a melodic peak, is forward motion, motion in one definite direction—either up or down—i.e. *progressive* motion. It can be compared to a straight line, in contrast to the oscillating or reservedly rounded motion which we have studied up to now. (p. 105) ²⁶⁴

²⁶⁴Основа всякой целеустремленной, направленной к вершине мелодии есть движение вперед, движение в одном определенном направлении—либо вверх, либо вниз,—т.е. движение поступательное. Его можно сравнить с прямой линией, в отличие от колебательности или замкнутой округленности движений, которые мы до сих пор изучали.

Mazel' illustrates such progressive motion with the *Allegro assai* theme from Mozart's *Symphony No. 40 in G Minor* (K. 550).

Example 70: W.A. Mozart, *Symphony No. 40 in G Minor*
(K. 550)



Types of melodic motion in goal-directed melodies are also subject to principles of melodic contradiction, which Mazel' describes as

the contradiction of separate intonations with the general melodic motion. Its basic significance is in the creation of melodic dynamism and intonational variety. The role of this principle appears most prominently in melodies of dramatic nature. (p. 108) ²⁶⁵

A theme from Georges Bizet's *Carmen* is cited as an example of a goal-directed melody in which motion is governed by melodic contradiction.

²⁶⁵противоречии отдельных интонаций общему ходу мелодии. Основной его смысл—создание мелодической динамики и интонационного разнообразия. С наибольшей силой выявляется роль этого принципа в мелодиях драматического характера.

Example 71: G. Bizet, *Carmen* (1875)



Mazel's comment on this melody is:

On the border between bars five and six (at the point of the golden section) occurs a turning-point from descent to ascent, to a certain degree prepared by the previous ascending "contradictory intonations." The principle of melodic contradiction, sharply and successively applied, allows for the creation of a gloomy, threatening, genuinely tragic theme. (p. 108) ²⁶⁶

The third principle governing melodic motion of goal-directed melodies is motion with steps.

A specific aspect of progressive motion, elaborated by contrary motion, represents motion with *steps*. . . We refer to progressive motion as stepped when it is systematically elaborated by repeated intonations or steps in the opposite direction. (p. 110) ²⁶⁷

As an example of melodic motion governed by this principle, an excerpt from the *Presto* theme from Domenico Scarlatti's *Sonata No. 29*, is referred to. This excerpt

²⁶⁶На грани 5-го и 6-го тактов (в точке золотого сечения) происходит перелом от ниспадения к подъему, в какой-то мере подготовленный прежними восходящими «интонациями сопротивления». Принцип мелодического сопротивления, остро и последовательно примененный позволяет создать сумрачно-грозную, подлинно трагическую тему.

²⁶⁷Особый вид поступательности, осложненной сопротивлением, представляет ступенчатое движение. . . Ступенчатым мы назовем поступательное движение, осложненное систематически повторяемыми интонациями или шагами обратного направления.

was discussed in Section Eight of Chapter Two (Example 35), where it illustrated Scarlatti's typical dimensional thematic use of several repeated phrases, concluding with a cadence. ²⁶⁸ Here the same excerpt is used to illustrate motion with steps.

Having presented the basic principles behind different types of melodic motions in the two kinds of melodies—the kind in which direction toward a goal is lacking, and the kind in which it is strongly felt—Mazel' concludes the section on types of melodic motion with a mention of three considerations that need to be kept in mind when analyzing melodic motion. He explains the first of these considerations thus:

"1. Melodic motions are not isolated from each other. They exist in constant interaction, mutually elaborating." (p. 191) ²⁶⁹

Mazel' refers back to the Presto from Scarlatti's *Sonata no. 29* as a melody in which this consideration is particularly relevant.

"...in the example [of the Presto from Scarlatti's *Sonata No. 29*], where motives move contrary to the basic direction of the melody, stepped motion is stressed by iambic skips and progressive spans." (p. 119) ²⁷⁰

This type of interaction of melodic motion must, in Mazel's view, be considered in integrated analysis of melody.

²⁶⁸The whole of Example 35 is reprinted here.

Example 35: D. Scarlatti, *Sonata No. 29* in *D Major*



²⁶⁹"1. Мелодические движения не изолированы друг от друга. Они существуют в постоянном взаимодействии, взаимном осложнении."

²⁷⁰"...в примере [сонаты Скарлаттия] ступенчатое движение, где мотивы движутся вопреки основной направленности мелодии, усилено ямбическими скачками с прогрессирующим размахом."

The second consideration which must be kept in mind is explained thus by Mazel':

2. The principles of development within a melodic line appear as reflections of general principles of development in musical works. This refers to the simplest and more complex phenomena. The melodic wave is the prototype of the dynamic wave of greater dimensions, which is capable of encompassing a whole work. . . Elaborated by returns, progressive motion is a phenomenon akin to ascending dynamic development of more or less large dimensions, rarely passing without temporal falls or other obstacles.
(p. 119) ²⁷¹

It is significant that Kurth's conception of the basis of musical development is embodied by the idea of the dynamic wave of which Mazel' considers the melodic wave to be a prototype. In this way the second consideration for analysis of melodic motion reflects the connection between Mazel's understandings of melody and Kurth's conceptions of form.

Mazel' explains the third and last consideration to be taken into account in analysing melodic motion, with the following words:

3. The melodic line is closely related to other means of expression. Thus in surging motion registral and textural conditions are important. . . ; stepped motion is often connected with typically active feet or sharp rhythmic figures; a big skip is often directed from a short to a long sound. . . A culmination is underlined by all possible non-linear means; the placement of a culmination within a period is subordinate to general syntactic principles.
(p. 119) ²⁷²

²⁷¹2. Принципы развития внутри мелодической линии являются отражением общих принципов развития в музыкальном произведении. Это касается и самых простых явлений и более сложных. Мелодическая волна—прототип динамической волны большого масштаба, могущей охватить и целое произведение. . . Осложненная возвратами поступательность есть явление, родственное восходящему динамическому развитию более или менее крупных масштабов, редко обходящемуся без временных спадов или иных препятствий.

²⁷²Мелодическая линия тесно связана с другим средствами выражения. Так, для

With these generalised examples of the connection of other expressive means and the melodic line, Mazel's presentation of types of melodic motion and principles governing them, concludes.

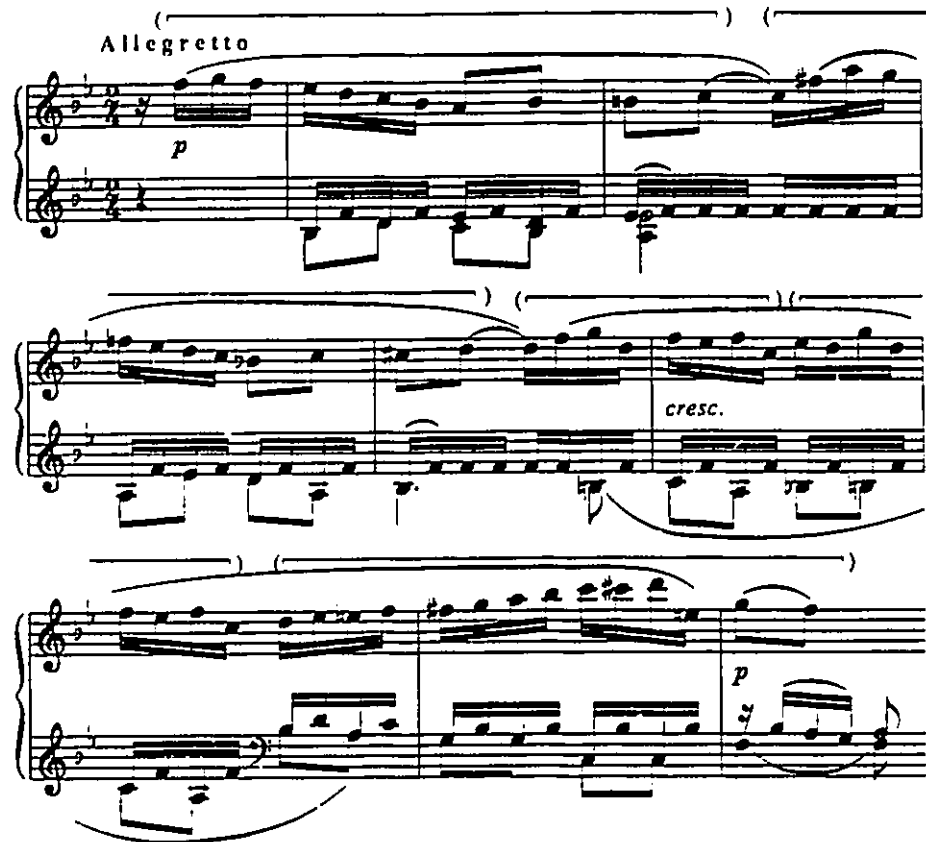
"SECTION EIGHT: Analyses of separate melodies" ²⁷³

In this last section of the *MELODIKA* chapter, Mazel' presents integrated analyses of four complete melodies, all opening themes of Classical works. The themes analysed include the eight bar theme of the Prestissimo of the *finale* from Beethoven's *Sonata for Piano No. 5 in C Minor (Op. 10, No. 1)*, the opening theme of the Allegretto of the *finale* from Beethoven's *Sonata for Piano No. 11 in Bb Major (Op. 22)*, the opening theme of Chopin's *Nocturne in Db Major (Op. 27, No. 2)*, and the opening period of the vocal line from Tchaikovsky's *Romance "Be it day."* Presented here is the second analysis. The theme of the Beethoven *Sonata for Piano No. 11 in Bb Major* was already discussed in Section Six of Chapter Two (Example 20), where Mazel' used it to illustrate the dimensional thematic structure of a *classical* splitting with closure. The theme's dimensions of thematic structure are not referred to by Mazel' in the melodic analysis presented here. The reason for this is his separation of the two subjects of dimensions of thematic structure and of melody in his presentation of each in *Analysis of Musical Works* (1967), and his unwillingness to confuse the two. We will, however, connect the melodic analysis to the dimensions of thematic structure Mazel' identified earlier. This will permit us to take an analytical step forward in the integrated understanding of the theme. The ultimate objective of integrated analysis would be to connect (or synthesize) all the conceptions into a single whole. This, however, precludes a familiarity with Mazel's entire theory of integrated analysis, of which we have presented only several aspects.

паращего движения важны регистровые и фактурные условия...; ступенчатое движение обычно связано со стопами активного типа или острыми ритмическими фигурами; большой скачок часто направляется от краткого звука к долгому...Кульминация подчеркивается всевозможными нелинейными средствами; местонахождение кульминации в периоде подчинено общесинтаксическим закономерностям.

²⁷³ "§8. Анализы отдельных мелодий"

Example 20: L. van Beethoven, *Sonata for Piano No. 11 in E♭ Major (Op. 22), IV* [Reprinted from pp. 52–53.]



Mazel's presentation of his analysis of the melodic structure of this theme begins with general statements on its overall style.

This melody is akin in spirit to Mozartean melodies...similar to many of Mozart's melodies, it combines momentum (significant role of continuous, sixteenth note motion in a moderate tempo) with lyrical melodiousness.

(p. 123) ²⁷⁴

²⁷⁴Эта мелодия родственна по духу моцартовским мелодиям...подобно многим мелодиям Моцарта, она сочетает подвижность(большая роль непрерывного движения шестнадцатыми в умеренном темпе) с лирической напевностью.

Following this he considers the melodic structure in the context of different analytical conceptions presented throughout the *MELODIKA* Chapter. His entire analysis is presented first.

The melody begins with two *two-bar contrary waves*, in each of which predominates stepwise motion. The peak of the first wave is scale degree VI, the peak of the second one—the leading tone, which gives the melody (as often happens when that note is a peak) a nuance of sensitivity that in the given case (in the context of overall melodic motion) combines with the element of Mozartean “gracefulness.” This combination is enhanced by the conclusion of each wave with ascending chromatic neighbours, which became in the XVII Century a particularly refined means of gracefully sensitive lyricism...The two contrary waves encompass a comparatively large range, and create a harmonically symmetrical, closed structure (“question-answer”—TDDT). After this follows (in the “third quarter” of the form) more energetic motion, devoid of interruptions, stoppages, returning to a comparatively narrow range. But even this most active (“motoric”) part of the melody is interwoven with intonations of lyrical character: here is sequentially repeated the motive of a suspension, preceded by a descending fourth—one of the typical motives of a lyrical melodika...Rhythmic energy with an absence of definite (ascending or descending) melodic direction creates a character of contradiction, inducing the expectation of resolution. Consequently the uninterrupted circling of the melody, as it often happens, serves here as a prelude to ascent, beginning in the middle of the sixth bar and again encompassing a broader range. In this conclusive two bars is reached the overall peak (culmination) of the structure, providing a résumé of the whole development: an ascending scale with an abundance of chromaticisms which, as it were, generalize the analogous motion of the endings of the initial waves

(eight notes)—the final four sounds representing in themselves a broadening out (in the sense of range, as well as of duration) of the lyrical motive dominating bars 5–6. (123–4) ²⁷⁵

To describe the general structure of the theme, Mazel' makes use of the conceptions of melodic waves, peaks, circling motion, ascending motion, and the culmination—all ideas presented earlier in the Chapter. From the identified larger structure Mazel' proceeds to consider modal and harmonic details: the scale-degrees of the peaks of the opening two-bar contrary waves are respectively degree six and the leading tone. This placement of the peaks leads Mazel' to make some observations on the implicit style, which he calls Mozartean. The ascending chromaticisms of the ends of each two-bar contrary waves have also in his view, Mozartean traits. Regarding the harmonic structure, he comments on the opening contrary waves as harmonically closed, forming a "question-answer" phrase (I-V-V-I).

The details of the second part, beginning with the "more energetic motion," are

²⁷⁵Начинается мелодия двумя обращенными двутактными волнами, в каждой из которых господствует плавное движение. Вершина первой волны—VI ступень мажора, вершина второй—вводный тон, придающий мелодии (как это часто бывает при вершинном положении этого звука) оттенок чувствительности, который в данном случае (в условиях общей подвижности мелодии) сочетается с элементом моцартовской «галантности». Этому же сочетанию способствует окончание обеих волн восходящими хроматическими задержаниями, ставшими в XVIII веке средством особо изысканной галантно-чувствительной лирики...Две обращенные волны охватывают сравнительно большой диапазон и создают гармонически симметричное замкнутое построение («вопрос—ответ»—TDDT). После этого следует (в «третьей четверти» формы) более оживленное движение, лишенное перерывов, остановок и вращающееся в сравнительно узком диапазоне. Но и эта наиболее подвижная («моторная») часть мелодии пронизана интонациями лирического характера: здесь секвенцируется и повторяется мотив нисходящего задержания, предшествуемого нисходящей квартой,—один из типичных мотивов лирической мелодики...Ритмическая подвижность при отсутствии определенной (восходящей или нисходящей) направленности мелодии создает характерное противоречие, заставляющее ждать преодоления, выхода. Поэтому безостановочное кружение мелодии, как это нередко бывает, служит здесь преддверием к восхождению, начинающемуся в середине 6-го такта и снова охватывающему большой диапазон. В этом заключительном двутакте достигнута общая вершина (кульминация) построения и дается итог, резюме всего развития: восходящая гамма с обилием хроматизмов как бы обобщает аналогичное движение (восьмыми), завершавшее начальные волны, а заключительные четыре звука представляют собой расширение (как в смысле диапазона, так и в смысле длительности) лирического мотива, господствовавшего в тактах 5–6.

more precise. The sequential motives are identified and analysed as each consisting of a suspension, preceded by a descending fourth. Mazel' ascribes lyrical qualities to such intonations. His main concern here is the expressive possibility inherent in the sequential repetitions. He attributes "a character of contradiction, inducing the expectation of resolution" to these repetitions. The resolution comes with the conclusive ascending, chromaticized motion that reaches the overall culmination of the theme. Mazel' points out the connection between the last four notes of the melody and the sequential motives, describing the former as a "broadening out" of the latter, "in the sense of range, as well as duration."

The attention to specifics of melodic structure apparent in the presented analysis is indicative of the technical, or analytical aspect of Mazel's integrated conception of the Beethoven theme in question. The main emphasis of the analysis, however, is not the technical aspect of the music, but rather the expressive and stylistic one, as Mazel's concluding words in his analysis indicate.

All the enumerated means create an elegant and energetic melody, full of subtle lyrical expressiveness. The music breathes with calm and satisfaction. This is expressed in the melodic line through energetic, though gentle motion, not tending away from the initial level, and therefore not being goal-directed but rather oscillating and wave-forming. (p. 124) ²⁷⁶

A note on the dimensions of thematic structure of this Beethoven theme, identified by Mazel' in Chapter Two, is necessary. The dimensions $2 + 2 + 1 + 1 + 2$ are fully supported by the melodic analysis that identifies the two opening two-bar contrary waves (i.e. $2 + 2$), the sequential motives (i.e. $1 + 1$), and the concluding ascending, chromaticized scale (i.e. 2). This additional analytical insight into the structure of

²⁷⁶Все перечисленные средства создают изящную и подвижную мелодию, полную тонкой лирической выразительности. Музыка дышит спокойствием и удовлетворенностью. В мелодической линии это выражено оживленным, но мягким движением, не стремящимся уйти от первоначального уровня и потому не целеустремленным, а колебательно-волнообразным.

the melody brings the reader one step closer to an integrated understanding of this theme, and unifies the theoretical conceptions presented in Chapters Two and Four.

* * *

The conceptions of melody in the theory of integrated analysis represent the speculative as well as technical aspects of the theory. In the *MELODIKA* Chapter, Mazel' has carried the reader from the broader conceptions of melody, in the opening Sections, to the more concrete, analytical ones of the later Sections. Throughout, the presentation reflects Mazel's theoretical antecedents in the theories of earlier 20th-Century Russian and German theorists. The final analysis of the theme from Beethoven's *Sonata for Piano No. 11 (Op. 22)*, allows Mazel' to unite the various conceptions of melody into a practical consideration of a musical work (all be it only an excerpt), thus illustrating an analytical application of his ideas.

CONCLUSION

The aspects of Lev Abramovich Mazel's theory of integrated analysis presented in this thesis offer an understanding of the types of theoretical conceptions that are the basis for integrated analysis of musical works. The main objective of this type of analysis is to consider all the available information—analytical, historical, stylistic—in formulating an integrated understanding of a musical work. Mazel's theory provides the analyst with the tools to undertake such analysis.

The presented aspects of the theory permit several general observations on Mazel's analytical conceptions. Throughout his exposition of each aspect of the theory, Mazel' is constantly concerned with historical, stylistic, and expressive questions. Each theoretical conception is considered within the context of its origins and its stylistic evolution. There is no pretense in this to systematic musicology or the writing of music history. Mazel' is only qualifying his theoretical conceptions with information "from other disciplines," as he puts it (see p. 15). Admittedly, some of his conclusions on folk music as the source of phenomena in Western art music, are debatable and should be viewed in the context of Mazel's orientations as a Marxist music theorist.

Mazel's other main concern centers on the expressive possibility inherent in each aspect of music considered. Each melodic structure discussed in the last chapter is invariably qualified by its expressive possibilities. This consideration is very significant for Mazel', and figures prominently in the entire theory of integrated analysis. The expressive possibilities of a work are closely connected to the Marxist notion of content and the social message of a work; the analytical definition of the content of a work is reached in part through the definition of the expressive possibilities of each of its elements.

Another observation on Mazel's conceptualization of the presented aspects of his theory relates to the extent of the repertoire which they include. Dimensions of thematic structures, for instance, are restricted to only the Classical repertoire that is based on evolved homophonic thematicism. This limits the analytical application of this idea to only that repertoire. Mazel considers the elements of dynamics, texture, and timbre only in music in which they have a secondary structural role, dismissing any music in which attempts are made to elevate these elements to structural significance; he brands music in which these elements have primary structural significance as anti-realistic and therefore inferior from his Marxist perspective. His conceptions of melody are broadest in terms of repertoire which they include, ranging from folk songs to Shostakovich's fugues. Most theories of music are limited by the repertoire from which they were formulated. Mazel's theory of integrated analysis is no exception. Its limitations of repertoire are, in fact, the only restriction to be found in the theory, for the underlying idea of integrated analysis is breadth of theoretical and analytical approach.

This breadth of approach is the most enlightening part of Mazel's theory of integrated analysis. The attempt of considering the entire complex of elements in analysis, without bias to any one analytical method that treats a single musical parameter, reveals quite a different conception of the purpose of analysis from the one Western 20th-Century theorists and analysts, particularly in North America, have. There is an emphasis in integrated analysis on synthesis through which the analyst arrives at a closer understanding of the connection between a work's structure and its content. Thus the analytical goal is aesthetic and historical, in as much as the Marxist notion of content and its definition concerns a work's aesthetic, historical and social aspects. That Mazel seeks to understand a musical work's content through studying its structure reflects his basic orientation as a Marxist theorist. This approach to analysis is quite novel from a Western perspective.

APPENDIX I

Example 72: F. Chopin, *Prelude No. 18 in F Minor (Op. 28)*

Allegro molto

1

4 2

1

4 2

cresc. - - - - - 22

The misprint of the thematic dimension for this *Prelude* in *Analysis of Musical Works* (1967) was mentioned in Section Six of Chapter Two. The broadening had a printed value which exceeded the length of the *Prelude* by a whole bar.

$$\frac{1+1+2}{4} + \frac{1+1+2}{4} + \frac{1+1}{2} + \frac{1+1}{2} + 1 + 1 + \frac{1}{2} + \frac{1}{2} + 2 + 5\text{---broadening [sic]}$$

The obvious misprint, however, could be viewed in another way, i.e. that the second last dimension (the closure) and not the broadening was misprinted, leaving two doubtful dimensions. There are only six bars of music concluding the *Prelude* in which both the closure and the broadening occur. Assuming the dimensions of the broadening to have been misprinted and the closure to be correct, the concluding dimensions of thematic structure of the whole will be "...2+4." If, on the other hand, the closure is a misprint and the broadening is correct, the concluding dimensions will be "...1+5." Mazel' does not discuss this *Prelude* beyond mentioning the dimensions of thematic structure that contain the misprint, thus not offering any clues for a choice between the two possibilities. The second possibility (...1 + 5), however, contains a more exact progression in dimension of thematic structure; namely, the last periodicity of the progressive splitting is summed into exactly a one-bar closure with the second possibility, fitting exactly the definition of a progressive splitting with closure (see p. 60). The first possibility lacks this advantage.

APPENDIX II

Example 73: A. Scriabin, *Prelude in G $\sharp$ Minor (Op. 16, No. 2)*

The musical score is presented in three systems, each consisting of a piano (upper) and bass (lower) staff. The key signature is G $\sharp$ minor (three sharps: F $\sharp$, C $\sharp$, G $\sharp$), and the time signature is 2/4. The tempo is marked "Allegro" with a quarter note equal to 80 (♩ = 80). The first system begins with a piano (*pp*) dynamic and includes a crescendo (*cresc.*) marking. The second system features a decrescendo (*dim.*) and returns to piano (*pp*). The third system concludes with a mezzo-forte (*mf*) dynamic in the piano part and a piano (*p*) dynamic in the bass part. Fingerings are indicated by numbers 1 and 2 above notes, and slurs are used to group phrases. Bar lines with repeat signs are present throughout the piece.

4 4

3 *f* *p* *cresc.*

2 2 1 1

ff *p* *f* *p* *f*

1/2 1/2 1 6

mf *ff* *ff* *fff*

The image displays three systems of musical notation for piano, likely from a 20th-century score. Each system consists of a grand staff (treble and bass clefs). The first system has a 4-measure phrase in the treble and a 4-measure phrase in the bass. The second system has a 2-measure phrase in the treble and a 2-measure phrase in the bass, followed by a 1-measure phrase in the treble and a 1-measure phrase in the bass. The third system has a 1/2-measure phrase in the treble and a 1/2-measure phrase in the bass, followed by a 1-measure phrase in the treble and a 6-measure phrase in the bass. Dynamics include *f* (forte), *p* (piano), *cresc.* (crescendo), *ff* (fortissimo), *mf* (mezzo-forte), and *fff* (fortississimo). Fingerings are indicated by numbers 1, 2, and 3. The notation includes various musical symbols such as notes, rests, beams, and slurs.

BIBLIOGRAPHY

WORKS BY LEV ABRAMOVICH MAZEL'

1929. "O metrotektonizme" [On metrotectionism]. *Proletarskii muzykant* 7-8:52-65.
- 1930 a. "Opyt issledovaniia zolotogo secheniia v muzykal'nykh postroeniakh v svete obshchego analiza formy" [Experimental research on the golden section in musical works in light of a general analysis of form]. *Muzykal'noe obrazovanie* 2:24-33.
- 1930 b. "Prelidiia A-dur Shopena v svete teorii mnogoosnovnosti ladov i sozvuchii" [The A major Prelude of Chopin in light of the theory of multi-based modes and chords]. *Muzykal'noe obrazovanie* 3:28-32.
1932. "O muzykal'no-teoreticheskoi kontseptsii Kurta" [On the musical theoretical conceptions of Kurth]. *Muzykal'nyi al'manakh*, ed. N. I. Cheliapov, 31-60. Moscow.
- with Rizhkin, I. 1934. *Ocherki po istorii teoreticheskogo muzikoznaniia* [Essays on the history of theoretical musicology]. vol. I. Moscow: Muzgiz.
1934. "Funktional'naia shkola v oblasti teoreticheskogo muzykoznaniia" [The functional school of theoretical musicology]. *Sovetskaia Muzyka* 4:76-90.
- with Tsukkerman, V. 1935. "O sovetskom uchebnike garmonii" [On the Soviet harmony textbook]. *Sovetskaia Muzyka* 6.
1937. *Fantaziia f-moll Shopena. Opyt analiza* [The F Minor Fantasy of Chopin. An experiment in analysis]. Moscow: Muzgiz.
1938. "Uchebnik garmonii Rimskogo-Korsakovo" [Rimsky-Korsakov's harmony textbook]. *Sovetskoe Iskustvo* (July).
- 1938-39. "Glavnaya tema Pyatoi simfonii Shostakovicha i ee istoricheskie svyazi" [The principal theme of Shostakovich's Fifth Symphony and its historical connections]. The author's personal collection.
- with Rizhkin, I. 1939. *Ocherki po istorii teoreticheskogo muzikoznaniia* [Essays on the history of theoretical musicology]. vol. II. Moscow: Muzgiz.

1939. *Printsipi postroeniya tak nazivaemikh «svobodnikh» form* [The principles of construction of the so called 'free' forms]. The authors personal collection.
1940. "O sovetskom teoreticheskom muzykoznanii" [On Soviet theoretical thought in music]. *Sovetskaia Muzyka* 12:15–29.
1940. *Osnovnoy printsipi melodicheskoy strukturi gomofonnoy temi* [The basic principles of melodic structure in a homophonic themes]. Ph.D.diss., Moscow State Conservatory.
1941. "K diskussii o sovetskom muzykoznanii" [Toward a discussion of Soviet musicology]. *Sovetskaia Muzyka* 4:90–98.
- 1943–44. *O Sedmoy simfonii Shostakovicha* [On Shostakovich's Seventh Symphony]. Central State Museum of Musical Culture: named after M.I. Glinka (Gosudarstvennyi Tsentral'nyi Muzei Muzykal'noi Kulturi).
1944. *Kontseptsiya Yavorskovo i russkaya muzykal'naya kultura* [Yavorsky's conception and Russian musical culture]. GTsMMK.
- 1944–45. *O Trio i Vtorom kvartete Shostakovicha* [On Shostakovich's Trio and Second Quartet]. GTsMMK.
1945. *Devyataya simfoniya Shostakovicha* [Shostakovich's Ninth Symphony]. The author's private collection.
- 1947 a. *Vvedeniye v analiz muzykal'nikh proizvedenii* [Introduction to the analysis of musical works]. GTsMMK.
- 1947 b. "O liricheskoy melodike Rakhmaninova" [On Rachmaninov's melodic lyricism]. *S.V. Rakhmaninov*, ed. T.E. Tsytovich. Moscow: Muzgiz.
- 1947 c. *F. Shopen* [F. Chopin]. Moscow: Muzgiz.
1951. "Ob obschenarodnom russkom muzykal'nom yazyke" [On the Musical Language of the Russian People]. *Sovetskaia Muzyka* 2 (Feb).
1952. *O melodii* [On melody]. Moscow: Gosudarstvenoe muzikal'noe izdatel'stvo.
1953. "Zametki o novatorstve" [Comments on innovation]. *Sovetskaia Muzyka* 7 (July).
- 1956 a. " 'Rol' «seksstovosti» v liricheskoy melodike (o nablyudenii B.V. Asafieva)" [The role of the 6th in lyric melodies (on B.V. Asafiev's interpretations)]. In *Voprosy Muzykoznaniya* vol. II. Moscow: Muzgiz.
- 1956 b. "Neskol'ko zamechanii o teorii muzyki i kritike" [Some comments on theory of music and criticism]. *Sovetskaia Muzyka* 11 (Nov).

- 1956 c. "19-a simfoniya Myaskovskovo" [19th symphony of Myaskovsky]. In *V pomosch' voennomu dirizheru* vol. III. Moscow: The Institute of Army Conductors.
- 1956 d. "«Torzhestvennaya uvertyura» H.P. Ivanova-Radkevicha" ['The Festive Overture' by H.P. Ivanov-Radkevich]. In *V pomosch' voennomu dirizheru* vol. III. Moscow: The Institute of Army Conductors.
- 1957 a. *Programma kursa analiza muzykal'nykh proizvedenii dlya muzykovedcheskikh i kompozitorskikh otdelenii konservatorii* [Program for the course Analysis of Musical Works for musicology and composition departments of conservatories]. Moscow: The State Ministry of Culture of the USSR.
- 1957 b. "O rashireнии ponyatiya odnoimennoi tonal'nosti" [On the widespread understanding of enharmonic tonalities]. *Sovetskaya Muzyka* 2 (Feb).
- 1957 c. "O muzykal'no-teoreticheskoi kotseptsii Asaf'eva" [On the musical-theoretical conceptions of Asafiev]. *Sovetskaya Muzyka* 3 (Mar).
- 1957 d. "Vydauschiyasya dissertatsiya" [An eminent dissertation]. *Sovetskii Muzykant* (June 25 and later issues).
- 1958 a. "Dve zametki o vzaimovliyaniі opernikh i simfonicheskikh printsipov u Chaykovskovo" [Two comments on the connection between operatic and symphonic principles in Tchaikovsky's music]. *Sovetskaya Muzyka* 9:72.
- 1958 b. "Zametki o melodike romansov Glinki" [Comments on the melody in Glinka's songs]. *Pamyati Glinki*, ed. V. Kiselyov et al., 80-114. Moscow.
1959. *Analiza muzykal'nykh proizvedenii* [Analysis of musical works]. Moscow: The Institute of Army Conductors.
- 1960 a. *Simfonii D. D. Shostakovicha; putevoditel'* [The Symphonies of D. D. Shostakovich; a guide]. Moscow: Sovetskii kompozitor.
- 1960 b. *Stroyeniye muzikal'nykh proizvedeniy* [The structure of musical works]. Moscow: Gosudarstvennoe muzykal'noe izdatel'stvo.
- 1960 c. *F. Shopen. Izdanie vtoroie, ispravlennoe i dopolnennoe* [F. Chopin. Second edition, corrected and enlarged]. Moscow: Muzgiz.
- 1960 d. "Nekotorye cherty kompozitsii v svobodnykh formakh Shopena" [Some compositional traits in Chopin's free forms]. *Friderik Shopen*, ed. F. Edel'man. Moscow: Muzgiz.
1961. "Tsennii sbornik" [A valuable journal]. *Sovetskii Muzykant* (May 24th).

- 1962 a. "K diskusii o sovremonnoy garmonii" [Toward a discussion on contemporary Harmony]. *Sovetskaia Muzyka* 5(May):52-61.
- 1962 b. "O stile Shostakovicha" [On Shostakovich's Style]. *Cherty stilya D. Shostakovicha*, ed. L. Berger. Moscow: Sovetskii Kompositor.
- 1962 c. "O fuge do mazhor Shostakovicha" [On Shostakovich's C Major Fugue]. *ibid.*
- 1963 a. "O traktovke sonatnoi formy i tsikla v bol'shikh simfoniakh D. Shostakovicha" [On the interpretation of the sonata form and cycles in D. Shostakovich's larger symphonies]. *Muzykal'no-teoreticheskie problemy Sovetskoi muzyki*, ed. S.S. Skrebkov. Moscow: Muzgiz.
- 1963 b. "Iz vstrech s zamechatel'nym khudozhnikom" [From a meeting with a notable artist]. *Sovetskaia Muzyka* 5(May):21-25.
- 1963 c. "Neobkhodiny radikal'nye izmeneniya" [The necessity for radical reforms]. *Sovetskaia Muzyka* 12(December):30-33.
1964. "O dvukh vaznykh printsipakh khudozestvennogo vozdeystviya" [On two important principles of artistic effects]. *Sovetskaia Muzyka* 3(March):47-54.
- 1965 a. "O putyakh razvityia yazyka sovremennoy muzyki" [On the directions of developments in the language of modern music]. *Sovetskaia Muzyka* 6, 7, 8.
- 1965 b. "O sisteme muzikal'nikh sredstv i nekotorykh printsipakh khudozhestvenno-vozdeystviya" [On the system of musical means and certain principles of the artistic effect of music]. *Intonatsiya i muzikal'niy obraz*, ed. B. Yarustovsky, 225-253. Moscow: Muzyka.
- 1966 a. "Oblik blagorodnogo cheloveka" [The aspect of a nobleman]. *Sovetskaia Muzyka* 3(March):32-5.
- 1966 b. "Vystuplenie na Vsesoyuznoi teoreticheskoi konferentsii po voprosam traditsii i novatorstva" [A submission to the All-Soviet theoretical conference on tradition and innovation]. *Sovetskaia Muzyka* 5(May).
- 1966 c. "Estetika i analiza muzikal'nikh proizvedeniy" [Aesthetics and Analysis of musical works]. *Sovetskaia muzyka* 12(December):20-30.
- with Tsukkerman, V.A. 1967 a. *Analiza muzikal'nikh proizvedeniy* [Analysis of Musical Works]. Moscow: Muzyka.
- 1967 b. "Zametki o muzikal'nom yazike Shostakovicha" [Comments on Shostakovich's musical idiom]. *Dimitry Shostakovich*, ed. G. Ordzhonikidze, 303-59. Moscow.

1968. Pismo v redaktsiyu. Neobkhodim slova. [Letter to the editor. Let us not evade words.] *Sovetskaia Muzyka* 1(January):141-2.
- 1969 a. "Mnenie chlena redkollegii" [An opinion of a member of redkollegia]. *Sovetskaia Muzyka* 7(July):40-43.
- 1969 b. "Istoriya i sovremennost'—o novykh rabotakh V. D.Konena" [History and contemporaneity—on new works by V. D. Konen]. *Sovetskaia Muzyka* 8(August):16-22.
1970. "Dva etyuda o Betkhovena" [Two Beethoven Studies]. *Sovetskaia Muzyka* 12(December):26-42.
- 1971 a. "Entuziast Nauki" [A science enthusiast]. *Sovetskaia Muzyka* 4 (April):63-7.
- 1971 b. *Issledovaniya o Shopene* [Chopin Studies]. Moscow: Sovetskii Kompozitor.
- 1971 c. "Zametki o tematizme i forme v proizvedeniyakh Betkhovena rannevo i srednevo periodov tvorchestva" [Comments on thematic material and musical form in compositions from Beethoven's early and middle creative periods]. *Betkhoven*, ed. N. Fishman, 36-160. Moscow.
- 1972 a. "Za dal'yneyshee razvitie muaykal'noy kritiki" [For the further development of musical criticism]. *Sovetskaia Muzyka* 8 (August):64-5.
- 1972 a. *Problemi klassicheskoy garmonii* [The problems of classical harmony]. Moscow: Muzyka.
1973. "Novaya teoriya proiskoshdenia lada" [New theory on the origin of harmony]. *Sovetskaia Muzyka* 9(September):85-7.
- 1974 a. "Tsukkerman i problemi analiza muzyki" [Tsukkerman and problems of musical analysis]. *O muzyke. Problemy analiza (Tsukkerman Festschrift)*, ed. V. Bobrovskij, G. Golovinskij. Moscow: Sovetskii Kompozitor.
- 1974 b. "Muzykoznanie i dostigneniya drugih nauk" [Musicology and the achievements of other sciences]. *Sovetskaia Muzyka* 4(April):24-35.
1975. "Razdumja ob istoriceskom meste tvorcestva Sostakovica" [The historic place of Shostakovich's work]. *Sovetskaia Muzyka* 9(Septembr):8-15.
1976. "O tipah tvorceskoga zamysla" [On the types of creative conception]. *Sovetskaia Muzyka* 5(May):19-31.
1977. O nekatoryh certah tvorcestva i lichnosti D.D. Sostakovica [On a few aspects of the works and personality of D.D. Shostakovich]. *Sovetskaia Muzyka* 9(September):104-5.

- 1979 a. *Voprosy analiza muzyki; opyt sblizheniye teoreticheskogo muzykovedeniya i estetiki* [Questions on the analysis of music; an attempt at bringing together theoretical musicology and aesthetics]. Moscow: Sovetskii Kompozitor.
- et al. 1979 b. "Problemy analiza sovetskoy muzyki" [Problems in the analysis of Soviet music]. *Sovetskaya Muzyka* 2(February):89-91.
- 1982 a. *Stat'i po teorii i analizi muzyki* [Articles on the theory and analysis of music]. Moscow: Sovetskii Kompozitor.
- 1982 b. "O nekotorykh teoreticheskikh problemakh" [On some theoretical problems]. *Sovetskaya Muzyka* 5(May):54-9.
- 1982 c. "Pesnja o fonarike: analiticheskie zametki" [The song of the torch: analytical comments]. *Sovetskaya Muzyka* 9(September):39-42.
1983. *O prirode i sredstvakh muzyki: teoreticheskij ocherk* [On the nature and processes of music: a theoretical survey]. Moscow: Muzyka.
1984. "Ob odnom tipe tselosnova analiza" [On one type of integrated analysis]. *Sovetskaya Muzyka* 5(May):59-70.
1986. *Etyudi o Shostakovich* [Shostakovich Studies]. Moscow: Sovetskii Kompozitor.
- with Kholopova, Yu.N. 1989. "Po povodu polemicheskikh statey" [On polemical positions]. *Sovetskaya Muzyka* 2(February):52-5.

LEV ABRAMOVICH MAZEL'S EDITORIAL AND TRANSLATION WORKS

1930. (trans. from Ger.) Dams, V. *Felix Mendelssohn-Bartholomew*. Moscow: Muzsektor Gosizdata.
1930. (trans. from Ger.) Leichtentritt, H. *Frederick Chopin*. Moscow: Muzsektor Gosizdata.
1934. "Redaktorskoye predisloviye k pervoy chasti truda G.L.Katuara «Muzykal'naya Forma»" [Editorial introduction to part one of G. L. Catoir's work 'Musical Form']. Moscow: Muzgiz.
1936. "Izlozheniye (po planu umershevova avtora) glav o rondo, rondo-sonate i o sonatnoy forme vo vtoroy chasti truda G. L. Katuara «Muzykal'naya Forma»" [Presentation (according to the deceased author's plan) of chapters on the Rondo, Rondo-Sonata, and Sonata Form of part two of G. L. Catoir's work 'Musical Form']. Moscow: Muzgiz.

with Kabalevsky, D.B., and Polovinkin, L.A. 1937. "Redaktorskoe primechaniya k pervoy chasti truda G.L.Katuara «Muzykal'naya Forma», 2-e izdaniye" [Editorial remarks to part one of G. L. Catoir's Musical Form, 2nd ed.]. Moscow: Muzgiz.

BOOKS AND ARTICLES ON LEV ABRAMOVICH MAZEL' AND HIS WORKS

Al'shvang, A. 1938. "Review of *Fantaziya f-moll Shopena: opit analiza*." *Sovetskaia Muzyka* 7(July):80.

Bobrovsky, V. 1951. "Review of *Stroyeniye muzikal'nikh proizvedeniy*." *Sovetskaia Muzyka* 2(January):186.

Ivanov-Boretsky, M. 1935. "Review of *Ocherki po istorii teoreticheskovo muzikoznaniya*." *Sovetskaia Muzyka* 6(June):108.

Kandinsky, A. 1968. "Review of *Analiza muzikal'nikh proizvedeniy*." *Sovetskaya Muzyka* 7(July):134.

Konen, V. ed. 1967. *Ot Lulli do nashikh dnei* [From Lully to our Day]. Moscow: Muzyka.

Kukakovsky, L. 1953. "Review of *O melodii*." *Sovetskaia Muzyka* 12(December):79.

Lyashenko, I. et al. 1966. "S tribuny teoreticheskoy konferentsii" [From the platform of the conference on theory]. *Sovetskaia Muzyka* 5(May):28-33.

Medusevskij, V. 1979. "Vklad v nauku o muzyke" [Contribution to musicology]. *Sovetskaia Muzyka* 6(June):103-9.

Shostakovich, D. 1962. "Za nauchnuyu osnovatel'nosty i esticheskuyu chistotu" [Toward scientific foundations and aesthetic clarity]. *Sovetskaia Muzyka* 6(June):72-7.

Stepanov, O. 1969. "Review of Mazel's contributions to the symposium 'Dimitry Shostakovich.'" *Sovetskaia Muzyka* 9(September):40.

Yarustovsky, B. et al. 1968. "Redaktsionnye besedy: istoriya i sovremenost'" [Editorial notes: history and contemporaneity]. *Sovetskaia Muzyka* 3(March):4-7.

Zhitomirsky, D. 1967. "Nauka i tayna muziki" [Science and the mystery of music]. *Sovetskaya Muzyka* 5(May):31.

RELEVANT RUSSIAN BOOKS AND ARTICLES

- Asafiev, B. V. 1963. *Muzikal'naya forma kak protsess* [Musical form as a process]. Leningrad: Gossudarstvenoe Muzykal'noe Izdatel'stvo.
- . 1977. *B. V. Asafiev's 'Musical form as a process': Translation and Commentary*, by J.R. Tull, Ph.D.diss., Ohio State University, Columbus.
- Catoire, G.L. 1934-36. *Muzykal'naia forma* [Musical form], 2 vols., ed. L.A. Mazel', D.B. Kabalevsky, and L.A. Polovinkin, Moscow: Muzgiz.
- Conus, G.E. 1924. "Metrotektonicheskoe razreshenie problemy muzykal'noi formy (konspekt muzykl'no nauchnogo issledovaniia)" [The metrotechtonic solution to the problems of musical form (A summary of musical scientific research)]. *Muzykal'naia kul'tura* 1:36-41.
- . 1924. "O Metrotektonicheskoe razreshenii problemy muzykal'noi formy (moi otvety L. Sabaneevu)" [On the metrotechtonic solution to the problem of musical form (my answer to L. Sabaneev)]. *Muzykal'naia kul'tura* 3:216-8.
- Garbuzov, N.A. 1928-32. *Teoriia mnogoosnovanosti ladov i sozvuchii* [The theory of multi-based modes and chords]. 2 vols., Moscow.
- Protopopov, S. V. *Elementy stroeniia muzykal'noi rechi* [The Elements of the structure of musical speech]. 2 vols., Moscow: Gos.izd.Muz.sektor.
- . 1962. "Kontrastno-sostavnye formy" [Contrastingly-structured forms]. *Sovetskaia Muzyka* 9(September):33-37.
- . 1963. "Zavet Betkhovena" [Beethoven's bidding]. *Sovetskaia Muzyka* 7(July):70-75.
- . 1970. *Principi Muzikal'noj formi Betkhovena* [The principles of musical form in the works of Beethoven]. Moscow: Muzyka.
- . 1978. *"The Elements of the Structure of Musical Speech" by S.V. Protopopov: A Translation and Commentary*, by G.D. McQuere, Ph.D.diss., University of Iowa.
- Taneev, S.I. 1909. *Podvizhnoi kontrapunkt strogogo pis'ma* [Convertible counterpoint in the strict manner]. Moscow.
- . 1962. *Convertible Counterpoint in the Strict Manner*. tr. G.A. Brower, Boston.

Tsukkerman, V. 1933. "O siuchete i muzykal'nom iazyke opere-bylini 'Sadko' " [On the subject and musical language of the opera bylina 'Sadko']. *Sovetskaia Muzyka* 3(March):15-29.

_____. 1967. "Vidy tselostnog analiza" [Aspects of integrated analysis]. *Sovetskaia Muzyka* 4(April):100-6.

Yavorsky, B. 1908. *Stroenie muzykal'noi rechi. Materialy i zametki* [Structure of musical speech. Materials and commentary]. vols. 1-3. Moscow.

_____. 1936. "Betkhoven. Variatsii do minor" [Beethoven. Variations in C minor]. In *Iz istorii sovetskoi Betkhoveniany*, 91-95. Moscow: Sovetskii Kompozitor.

RELEVANT WESTERN BOOKS AND ARTICLES

Hasty, C. 1986. "On the Problem of Succession and Continuity in Twentieth-Century Music." *Music Theory Spectrum* 8:58-74.

Kerman, J. 1985. *Contemplating Music: Challenges to Musicology*. Cambridge, Mass.: Harvard University Press.

Kurth, E. 1913. *Die Voraussetzungen der theoretischen Harmonik und der tonalen Darstellungssysteme*. München: Musikverlag Emil Katzsbichler.

_____. 1917. *Grundlagen des linearen Kontrapunkts*. Bern: Verlag Krompholz & Co..

Leichtentritt, H. 1967. *Musical Form*. Cambridge: Harvard University Press.

McQuere, G.D. 1983. *Russian Theoretical Thought in Music*. Ann Arbor, Mich.: UMI Research Press.

Mickelsen, W.C. 1970. *Hugo Riemann's History of Harmonic Theory with a translation of "Harmonielehre."* Ph.D.diss., Indiana University.

Prout, E. 1983. *Musical Form*. London.

Riemann, H. 1903. *System der Musikalischen Rhythmik und Metrik*. Leipzig: Breitkopf & Härtel.

Rothfarb, L.A. 1988. *Ernst Kurth as Theorist and Analyst*. Philadelphia: University of Pennsylvania Press.

Sadie, S. ed. 1980. *The New Grove Dictionary of Music and Musicians*. London: Macmillan Publishers Limited.

Schoenberg, A. 1967 (1937–48). *Fundamentals of Musical Composition*. ed. L. Stein. London: Faber.

Schwarz, B. 1972. *Music and Musical Life in Soviet Russia*. New York: Norton.