

Pitch Organizational Procedures

in Mussorgsky's *Nursery*

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Introduction

Describing his first visit to Debussy's house in Paris in 1911, Igor Stravinsky noted: "...we talked about Mussorgsky's songs and agreed that they contained the best music of the whole Russian school."¹ Today, Mussorgsky is largely known by a small number of instrumental works such as Pictures at an Exhibition, Night on Bald Mountain, and the opera Boris Godunov. Of these three works, the first and last are generally better known in versions other than the original—Ravel's orchestration of Pictures and Rimsky-Korsakov's revision of Boris. This has led to the commonly accepted critical representation of Mussorgsky as a composer "deficient" in technique—one of whose works need to be "cleaned-up" and "made acceptable" to the listening public.

In his recent article on Mussorgsky, Gerald Abraham adopts the same critical stance.² He describes the composer in apparently "neutral" terms as an "unorthodox harmonist," suggesting that this may be due to the composer's "disdain

¹Igor Stravinsky and Robert Craft, Expositions and Developments (New York: Alfred Knopf, 1962), p. 158.

²The New Grove Dictionary of Music and Musicians, s.v. "Mussorgsky, Modest Petrovich."

for formal beauty and technical polish and every other manifestation of 'art for art's sake.'" Abraham further refers to "structural weaknesses" and a "lack of organic cohesion" in Mussorgsky's instrumental works. At the end of the article, the author cites the frequently used criticism of Mussorgsky's musical language—his tendency towards naturalism or realism—as the basis of the largely unsupported assertion that "... (Mussorgsky's) harmony would often be nonsensical as absolute music."³

Debussy, on the other hand, thought differently, (He was, it must be added, not alone in his thinking.)⁴ For him, it was not a question of "lack of technique," but rather a non-dependence on traditional compositional procedures. This, in Debussy's view, is the source of "progressiveness" in Mussorgsky's music. He described Mussorgsky as "unique" because "... his art is spontaneous and free from arid formulas."⁵

Such are the extremes of critical response associated with the work of Mussorgsky. They range from a mere dismissal of him as an "uneducated" composer to a profound worship of his originality which, in the case of Debussy, and like most pronouncements by composers about other composers, should be understood as representing an artistic or aesthetic and consequently technical synonymity. But there is a third "mediating" approach, one which seeks to provide a more objective basis for criticism through a careful analysis of organizational procedures found in Mussorgsky's music. This is, in part, the purpose of this paper.

Because of the growth of interest of analytical theory in this century, it has been possible to propose, with a decent degree of "objectivity," an analysis of the elements of Mus-

³This paper refutes this viewpoint by describing ways in which Mussorgsky's harmony makes perfect sense. That some of these ways are unorthodox by nineteenth century standards there is no question. But unorthodoxy does not mean nonsense. The syntax of each piece discussed below is shown to be logical according to the terms of the piece.

⁴Franz Liszt also expressed admiration for the Nursery songs. In a letter to his friend Vladimir Stasov in August 1873, Mussorgsky wrote: "...Liszt liked The Nursery so much that he wants to do une bleutte on little themes from it." (See Jay Leyda and Sergei Bertensson, eds. and trans., The Mussorgsky Reader (New York: W.W. Norton, 1947), p. 236).

⁵Claude Debussy, "Monsieur Croche the Dilettante Hater," in Three Classics in the Aesthetics of Music (New York: Dover Publications, 1962), pp. 19-20.

sorgsky's musical language.⁶ It is not enough to see the composer solely in the light of the Russian liberal nationalism of the 1860's, for that would limit our perspective and reduce the scope of our inquiry to a mere identification of "folk" or "national" elements in his music. An ahistorical approach on the other hand, in spite of its limitations—it obscures for instance, the magnitude of the impact of the contemporary artistic environment on Mussorgsky and vice versa—serves to illuminate specific technical issues. It does this by rejecting the constraints of "style"—often statistical, hence general rather than particular, and of limited applicability—in favor of one that takes the individuality of the composition as premise, and proceeds to demonstrate the logic of its syntax. This essay adopts the latter approach.

Debussy's interest in Mussorgsky went beyond the general corpus of the latter's songs to a particular piece, the song cycle Detskaia, or The Nursery. In April of 1901, Debussy published a short article in the Paris periodical, La Revue Blanche on Mussorgsky's work, emphasizing those organizational aspects that make it a "masterpiece."⁷ These generally tend, understandably, towards the symbolic aspects of Mussorgsky's language—aspects of "associative" and "embodied" meaning.⁸ But the actual technical observations found in this essay, though few and far between, are pertinent and of particular relevance to this study. Debussy seems to have been particularly impressed by Mussorgsky's economy in choice of pitch material. He notes the "extreme simplicity" with which the events in this piece unfold: "...for Mussorgsky, one chord is often sufficient....Or else he uses a modulation so individual that it wouldn't ever have been found in the books of M. So-and-so."

The Nursery, a cycle of seven songs for voice and piano, was composed between 1868 and 1872. The following is the chronology of the songs:⁹

⁶For example, the Schenkerian and neo-Schenkerian schools of this century with respect to tonal music, or the approach to so-called "atonal" music that stems from Allen Forte represents attempts to provide an objective description of musical structure.

⁷This essay is reprinted in Debussy on Music, Francois Lesure and Richard L. Smith, eds. (New York: Alfred A. Knopf, 1977), pp. 20-25.

⁸This descriptive terminology is borrowed from Leonard Meyer's Emotion and Meaning in Music (Chicago: University of Chicago Press, 1956).

⁹From Oskar von Riesmann, Mussorgsky, trans. Paul England (New York: Dover Publications, 1971).

Song 1	"Child and Nurse (Niania and I)"	1868
Song 2	"In the Corner"	1870
Song 3	"The Beetle"	1870
Song 4	"With the Doll"	1870
Song 5	"Going to Sleep"	1870
Song 6	"Murr, the Cat (Naughty Puss)"	1872
Song 7	"A Ride on the Hobby-horse"	1872

This paper offers an analysis which will describe the major aspects of pitch organization in the composition, particularly those that have implications for later developments in the organization of musical structure (notably, in the early twentieth century).

To discuss pitch organization in song, or for that matter, any vocal work, is to expose oneself to possible criticism for either ignoring or simply underplaying the importance of certain descriptive associations that occur often and only on the surface of the composition. In the present context for example, it is true that a knowledge of the sound of the Russian language and Mussorgsky's efforts towards naturalistic representation—syllabic setting of words, disjunct metrical and rhythmic succession—illuminates one's understanding of the character of the music. But there is no substitute for a systematic attempt to understand the logic that governs the choice of particular pitch configurations, and the kind of interrelationships that exist between them. Thus, while an effort is made not to overlook obvious descriptive gestures, I do not ascribe to "pictorialism" or "symbolism," musical procedures whose function within the total fabric I am unable to explain.

The following discussion will be concerned only with the first five songs of the cycle as they appear in the original version. Songs 6 and 7 became part of the cycle only with the publication of the second edition in 1908. I will discuss each song following the chronology of the cycle. Because of the need to locate specific points in the music, it would be helpful for the reader to have access to a copy of the cycle.¹⁰

¹⁰Specific references in this paper apply to the following edition: The Nursery: A Cycle of Seven Songs for Voice and Piano. English tr. by Edward Agate, rev. by Sergius Kagen, New York City: International Music Co., 1951.

Song 1

An examination of the poem and the derived musical outer form of this opening song shows that it is characterized by clearly organized points of articulation. These can be observed in Example 1, which sets out the main pitch-referential elements of the song. In this and the examples that follow, I have used an adaptation of the hierarchic notation set forth by Felix Salzer. For a summary of these notational principles, see Felix Salzer's "A Glossary of the Elements of Graphic Analysis," in the Music Forum 1 (1967; p. 364). I should perhaps mention that there are many departures (sometimes fundamental) from authentic Schenkerian notation as well as that of the neo-Schenkerian school in general. Criteria for segmentation include completeness of poetic thought, cadential action (accomplished jointly by the normal increase in the rate of harmonic change, rhythmic deceleration, and a controlling top-voice structural descent), and repetition.

In contrast to the musical outer form however, the actual syntax is anything but straightforward. In fact, part of the clarity in the articulation of the outer form derives, ironically, from the mixed tonal syntax, a mixture of functional and non-functional tonal procedures that is ultimately subsumed by the former.

Throughout this paper, an important distinction is made between functional and non-functional tonal procedures. Functional refers to those relationships postulated by the hierarchic tonal system, designated conventionally by Roman numerals representing degrees of the scale. Non-functional refers to those procedures that do not demonstrate any such relationships. It is possible however, to speak of tonal centers defined by either procedure. The problems associated with this distinction are discussed by Arthur Berger in his article "Problems of Pitch Organization in Stravinsky."¹¹ The remarkable similarity between the analytical issues raised by the music of Stravinsky and Mussorgsky is no mere coincidence, as will become evident in the course of this study. It would seem, then, that a study of pitch-organizational procedures in this song should consider, fundamentally, the nature and function of the above-mentioned points of articulation, as well as the means of achieving foreground continuity between these points. The first consideration inevitably takes other parametric activity, notably rhythmic, into account (mostly middleground

¹¹Perspectives on Schoenberg and Stravinsky, eds. Benjamin Boretz and Edward T. Cone (New York; W.W. Norton, 1972), pp. 123-154.

Example 1. Song 1, Pitch Structure.

a. Mm. 1-13.

mm. 1 3 6 8 10 12 13

B^b: iv V I

b. Mm. 14-23.

mm. 14 18 19 20 22 23

c. Mm. 24-41.

mm. 25 30 34 36 38 39 41

C: I iv I iv I V I

d. Mm. 42-53.

mm. 43 44 45 49 51 53

processes), while for the second consideration, an examination of the motivic process is suggested. Let us explore the implications of these considerations, beginning with Example 1a.

The opening dyad of unit 1, G^b-B^b , is presented, first in isolation (notice the effect of temporal expansion created by the fermata), and is then partly absorbed by the pseudo-functionality of the next two bars. B^b is then isolated for emphasis by means of two, unisonic (multi-octave), metricaly prominent statements in mm. 6 and 8. B^b further generates, by stepwise ascent, the first high point in the piece— F^5 in m. 13, the attainment of which serves to conclude the first structural unit of the song. Example 1a thus shows that mm. 1-13 are articulated by a series of referential elements, each of which contains or consists of the invariant pitch class (pc) B^b , presented with increasing functional status.¹²

A complete break of syntax occurs between units 1 and 2, resulting significantly in the displacement of B^b . The two structural units are therefore juxtaposed. Example 1b differs from the preceding unit by the way it is introduced: a full triad (D major), which also serves to close off the unit at m. 24. Of particular interest here is the dual treatment of the D-major sonority. In m. 14, it marks a disjunction with the previous unit, but does not generate any kind of harmonic progression. Its use is in fact tonally non-functional. (See also the lack of "rhythmic progression" between mm. 14 and 18.) In the second half of m. 18 however, an unequivocal harmonic progression begins, culminating in the deceptive D major triad in mm. 23-24. The progression can be described as deceptive because of the behavior of the strong functional six-four chord in m. 22, which implies an authentic cadence in B^b . The following D major chord is then heard as an applied dominant of the submediant which itself does not occur. This treatment of the triad is tonally functional. In the second structural unit of the song, coherence or large-scale articulation is achieved by a respective non-functional and then functional treatment of a triadic sonority.

The third phase of the structural process (Example 1c) divides into three parts, mm. 25-30³, 30³-36² and 36³-42.

¹²In his analysis of the tonal structure of Schumann's *Dichterliebe*, Arthur Komar describes the function of pc B within the first five songs in similar terms. His, however, is a "macro" context, i.e. from one song to the next, whereas Mussorgsky's is a "micro" one, i.e. within the same song. (See his analytical essay in Robert Schumann, *Dichterliebe* (New York: W.W. Norton, 1971), pp. 63-94.)

In the first of these subsegments, the child asks to hear the story of a certain king and queen. In the second, he speaks separately of the king, while the queen engages his attention in the third.

But for the retention of pc A between units 2 and 3, the effect would have been one of apparent juxtaposition, thus paralleling the procedure between the first two units. The first phase of the process represented in Example 1c contains the most traditional harmonic-syntactical procedure in the song so far—harmonic motion by descending 5ths, Bb-Eb-Ab-Db. The point of arrival, Db, is then prolonged by means of a pedal between mm. 28³ and 30². The second phase is introduced by an interruption of the functional process by segments of the whole tone scale on Db (C). This whole tone simultaneity first occurred in m. 17 as part of the non-functional opening of the second structural unit of the song. The cross reference thus provides an added element of association between those two sections of the song. This pc then controls the rest of the phase. The origin of C[#] in m. 36 may thus be explained with reference to its tonal-functional environment in m. 30, its absorption into a symmetrical formation at m. 30³, and its "neutral" (i.e. unison) occurrence in m. 36. The third phase of unit 3 is also characterized by a tonal-functional progression in a brief C major, which leads via F to Bb in the next structural unit—another circle of fifths progression. The difference here, however, lies in the foreground, which is obscured by non-chord tones, modal interchanges and a punctuating bass consisting of adjacent half steps. The source of this half step motion may be traced to m. 13 where a descending chromatic scale marked the conclusion of the first structural unit. The third structural unit thus unfolds in three stages. It proceeds from the tonal-functional environment of Db, redefined as a non-functional but referential Db, to C as dominant of the dominant of the home key Bb, thus creating a harmonic overlap with the next selection.

The last structural unit utilizes a conventional harmonic scheme, leading to a final, definitive gesture by means of which Bb, the key of the piece, is given the necessary rhetorical emphasis. Example 1d shows this harmonic framework. Of interest is the way in which Bb is treated. At mm. 44³, it provides a unison resolution to the large dominant of mm. 43³-44². Then, in m. 46, it supports the "wrong chord" (in spite of the implied dominant-tonic succession, Bb actually supports the submediant chord which functions here as a substitute tonic). Next, in m. 49, though presented as the root of a full chord, Bb is construed as part of an upper-voice ascent. It is therefore structurally inferior to the final occurrence in m. 51 (echoed in m. 53). Bb thus receives progressively greater

structural and rhetorical weight in the last eleven measures of the piece. This procedure therefore balances that of the first structural unit of the song where Bb was presented with increasing functional status. An additional factor that emphasizes the congruence of the structural processes in the first and last units of the song is the parallel motivic process. This is discussed below with reference to Examples 2 and 3.

To summarize our observations on Song 1 so far: the analytical procedure took two forms—the identification of pc's of priority by various processes of signification including phrase positioning, durational or accentual prominence, etc. (i.e. non-functional but tonal processes),¹³ and the identification of tonally functional tonics. The fact, however, that similar gestures are used to articulate the two kinds of procedures serves a unifying purpose in the song.

An alternative process that cuts across the functional/non-functional dichotomy and lends unity to the whole song, is the motivic structure, an example of which is given in Example 2. Because of the limitations of space, it has not been possible to discuss the motivic structure of the entire song (except by generalizations, based on what is analyzed), nor to present interrelationships between motivic cells in the ideal visual setting.¹⁴ In its simplest form, the technique of melodic organization consists of a process of variation involving, among other things, expansion or contraction of contour, "real" or "contextual" transposition, and modal reinterpretation. Example 2 shows how contour is manipulated by intervallic modification between successive segments. Thus between a-1 and a-2, interval class (ic) 4 is expanded to ic 5; similarly, with regard to b-1 and b-2, excluding the invariant elements, the respective spans of their total pitch content are ic's 4 and 6, thus representing an expansion. Subunits a-3, a-4, a-5 and a-6 are also based on a-1; they are in fact, subsets of a-1, isolated, and used as the basis of an extension. In general, this process of linear extension takes the following form:

¹³Arthur Berger's terminology. See Berger, "Problems of Pitch Organization."

¹⁴See the analytical presentations of semiologists such as Nicholas Ruwet and Jean-Nattiez, for example, the latter's analysis of Debussy's Syrinx in Proceedings of the 1st International Congress on Semiotics of Music, Belgrade, 1973.

STAGE:	1	2	3	4
PROCESS:	Statement	Variation	Isolation of one or two elements of stage 2	Variation of stage 3

It is thus a process of progressive loss of identity for the "generator" of "parent" segment.¹⁵ Example 2 provides an illustration of the process. Thus, a-1 constitutes "statement," while A-2 is "variation." a-3 represents the isolation of the descending gesture of a-2, while a-4 varies this descent by intervallic expansion. a-5 and a-6 are further variants of a-3. With a-6, the process comes to an end. Once complete, a new "parent segment" is introduced and subjected to either the same process or an adaptation thereof. Another example of this process can be seen in Example 2, beginning with b-1. An important macro-organizational principle thus emerges from these observations: a referential process articulates the entire melodic span of the song, and thereby provides an important counterpoint to the pitch-articulative procedures described above (Example 1).

Another example should clarify the process even further. The vocal line of the last ten measures of the song is given in Example 3, as well as a summary of its pitch content. In line 1, x-1 constitutes the "generator," x-2 a modal variation of x-1, x-3 the isolation of the descent in x-2, and x-4 a transposition of x-3. Clearly, we are no longer dealing with the kind of thematic manipulation associated with Haydn or Beethoven, nor with the popular "thematic transformation" associated with the music of Berlioz, Liszt or Wagner where the background functional hierarchy is never in doubt. Mussorgsky however, exploits the elements of a given motivic unit rather systematically—an almost cellular approach to pitch organization. This is precisely where he differs from other nineteenth century composers—in the almost mechanical precision with which the thematic process unfolds.

Example 3 also shows that underneath the apparent surface discontinuity, there exists a simple proto-structure consisting of a stepwise ascent from Bb to F followed by a skip

¹⁵A similar technique, operating over the span of an entire composition is described by Leonard Meyer in his Emotion and Meaning in Music. The piece used is the second of Chopin's Preludes for piano, op 28. There is also some similarity between this technique and Schoenberg's "developing variation" which he discusses in connection with his own early music and that of Johannes Brahms. (See "My Evolution," in Musical Quarterly 38, no. 4 (1952):364.)

Example 2. Song 1, Motivic Structure.

a. Mm. 1-13

mm. 1

1
a-1 a-2 a-3 a-4 a-5 a-6
6
b-1 b-2 b-3
11
b-3 b-4
13

b. Mm. 9-13, Underlying Structure.

(Example 3)

Example 3. Song 1, Mm. 43-51.
mm. 43

45

1
2
3

mm. 47

49

51

1
2
3

back to B \flat (line 3). In fact, the background of the entire line proceeds in parallel triads spanning the same fifth outlined by the vocal line (line 2). If we now compare Example 2 with Example 3 (these represent the opening and closing statements of the song), we discover that their underlying structures are identical. This parallel represents another source of structural coherence.

Song 2

The two sections of this song deal with the nanny's reprimand of the child for overturning her sewing box (mm. 1-33), and the child's plea of innocence, a plea tinged with sarcasm (mm. 34-end). This outer form is emphasized by elements of characterization, notably, the association of non-functional and functional tonal processes with nanny and child respectively.

The descending scale with which the song opens is framed by C and F but reveals a D \flat major background (See Example 4). The proximity of these three pc's is strongly implica-

Example 4. Song 2, Opening, Descending Scale.

mm. 1 2



"Background"

tive: the pc's constitute the pitch-referential material of the entire song, presented here in concentrated form. At the end of the first section for example, C is given priority (mm. 32-34). It is then reinterpreted in various tonally functional contexts in the second section; the last of these is F major, the ultimate goal of the piece. The C-F relationship thus may be regarded as the essence of the macro-structure.

D^b , on the other hand, functions on a subsidiary level. In mm. 8-11, it acquires temporary referential status. Later (mm. 30-33), it emerges from its membership in the diminished seventh chord $E-D^b-B^b-G$ to become a neighbor-note to the principal C. The strong rhetorical gesture that accompanies the association of these two pc's is noteworthy. The same dyad occurs at the end of the song, only this time in a priority-F region. In this way, the two halves of the song are unified by a similarly-positioned element.

In retrospect, mm. 1 and 2 may be understood as presenting the important pitch centers of the song on structural levels that are subsequently reversed. Thus, F and C occur on the foreground while D^b occurs in the background in the opening measures. F, however, assumes overall background primacy (in association with C), while D^b occupies mostly foreground or, occasionally, middleground levels.

Examples 5 and 6 describe the pitch content of both sections of the song.¹⁶ In the first section (See Example 5), shape is provided by different kinds of pc emphasis including repetition, accentual and durational prominence, textural prominence and significant positioning within the musical phrase. Thus, F constitutes the center of mm. 4-7 as defined by the gestural similarity of the phrases marked "a" and "b" in Example 5. The shift to D^b in m. 8 is accompanied by an increase in the pitch collection of each bar, in spite of the retention of phrase structure. Mm. 8 and 9 are identical, m. 10 may be described as a "modal variation of 8/9 (B^b replaces B^{bb}), and m. 11 absorbs both modal types in a chromatic collection that spans the scalar limits of the three preceding bars.

Mm. 12-16 return to priority-F, but use the same process described in connection with 8-11. In other words, mm. 12 and 13 are modal variants of each other (G^b replaces G) and are repeated as 14 and 15. Mm. 16-25 thus become the reservoir for the entire section. Here the entire source set unfolds, thereby absorbing not only the process of mm. 12-15 (this is its local function), but also that of mm. 1-11 (its long-term function).

An interesting pattern, which can be described as a general organizational principle for this song, emerges from the preceding discussion. Musical phrases are structured in such a way that smaller sets, stated at the beginning, are

¹⁶The fact that the same notation represents both functional and non-functional procedures testifies to its adaptability. Ultimately however, we are interested solely in pc's of priority, irrespective of the means by which they are defined.

Example 5. Song 2, First Section.

1 2 3 4 5

6 7 8

9 10 11

12 13 14 15

16-25 26-31 32 33 34

absorbed by parent sets located at the ends of phrases. It is interesting to compare this principle with that of the previous song where the parent segments occur at beginnings rather than endings of phrases.

The final phase of the structural process in the first half of the song is characterized most obviously by the displacement of the pc of priority F. The procedure involves the superimposition of a diminished triad on F (see m. 24, which is itself reminiscent of m. 3), followed by a horizontalization of the triad, articulated by a disruption of metrical regularity. Rhythmic ambiguity results from the introduction of a two-beat meter within the predominant triple (see mm. 26, 27 and 29) leading to the arhythmic mm. 30-33. The effect is one of rhythmic transition between the two sections of the song. The structural process in the first section of this song is determined by pc's F and D^b, which function as pc's of priority. Because the methods by which these pc's are articulated are not tonally functional, the final C is not the outcome of any large-scale cadential progression. Rather, it owes its status to the action of so-called secondary parameters which have here acquired primary status. The distinction between primary and secondary parameters is mostly applicable to the music of the eighteenth and nineteenth centuries. The former includes harmony, rhythm and melody, while the latter embrace texture, dynamics, etc. That this parametric hierarchy is broken by Mussorgsky is an important foreshadowing of some of the structural procedures found in the music of the early twentieth century.

In the second section (mm. 34-59), the child pleads his case in an atmosphere of subtle structural contrast with the preceding section; tonally functional harmonic procedures replace the earlier non-functional "tonics." Example 6, a reduction of harmonic organization in this section, reveals three phases in which the structural process unfolds: mm. 34-45, 46-52 and 53-59.

The major triad on F acts as a tonal reference point in the first phase, leading, via a D minor chord, to tonicizations of C and A major in mm. 41 and 43 respectively. The resulting sequence of functionally-determined tonic, F-A-C, constitutes the major triad on the first member of the sequence, F. In other words, the F major sonority, first stated in m. 34, is subsequently horizontalized, treating each chord member as a tonal goal. This technique is also prophetic of the twentieth century but has its roots in the nineteenth. Thus, in the "Wolf Glen's Scene" from Weber's Der Freischütz, the diminished-seventh chord C-E^b-F[#]-A, presented with great dramatic force at the opening of the opera (m. 26 of the overture), is horizontalized, each pc being treated as a tonal goal to underline the fundamental instability of the scene. Again in the first movement of

Example 6. Song 2, Second Section.

(Example 6)

mm. 34 36 38 39 40 41 42 43 45

mm. 46 47 48 49 52 53 54 55 56 57 58

V I

The image shows a musical score for a single melodic line in treble clef. The score is divided into two systems. The first system covers measures 34 to 45. Measures 34, 36, 38, 41, and 43 are marked with vertical lines. A dashed line connects the first measure of the system (34) to the end of the system (45). The second system covers measures 46 to 58. Measures 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, and 58 are marked with vertical lines. A dashed line connects the first measure of the system (46) to the end of the system (58). Below the second system, the letters 'V' and 'I' are placed under measures 52 and 58 respectively, indicating a cadence. The music consists of various note values, including quarter, eighth, and sixteenth notes, as well as rests and accidentals.

Beethoven's piano sonata, op. 31, no. 3, the members of the opening chord, A^b-E^b-C-F are treated as tonal goals in the development section, thus explaining the rather atypical key scheme, particularly the lack of a dominant.

The shape of the second phase is provided by two related gestures in mm. 46-48 and 49-52. Both involve repetition, the one varied (mm. 46-47² are transposed down a whole step as mm. 47³-48) and the other exact (mm. 49-50 and 51-52 are equivalent). Significantly, the earlier gesture, which also marks a return to the syllabic reference to nanny, contrasts with the more lyrical plea of the child. As indicated earlier, tonal function and non-function are associated with child and nanny respectively.

The third phase of the structural process is held together by a simple dominant-tonic succession (See Example 6). This is in spite of the predominantly chromatic foreground (an almost non-functional use of chromaticism). The cumulative effect is of a mixture of functional and non-functional harmonic processes in which the former absorb the latter.

Song 3

This song's highly persuasive representation of the poem—a description of the child's interaction with a beetle on the lawn outside his house—would seem to suggest an analytical approach that deals, perhaps fundamentally, with symbolism and/or associative meaning. Because of the absence of an analytical tool that develops this approach, I will concern myself with the purely musical argument. Two points in particular will be considered: the nature of the chromatic writing in the context of pitch emphasis (hence structural delineation) and the melodic process.

The controlling tonic of Song 3 is F, which, like previous songs, is defined by both functional and non-functional harmonic procedures. The first occurs between mm. 5 and 6, where it marks the change from the minor to the major mode on F. It is then asserted (mm. 8-15) by means of a tonic pedal, before yielding to its dominant C at m. 16. C is employed as reference point in the overt description of the flight of the beetle. The C generates the chromatic bass motion in m. 24, supports an augmented triad m. 29, and then, after a brief digression in which A^b and E^b (related as tonic and dominant) are given prominence, returns as dominant of F in m. 62, leading to a cadence in the next measure. F then controls the rest of the song by means of an extended pedal point (mm. 63-90). The song, however, finishes on C as dominant of F major. This articulation of the larger structure of the song is summarized in Example 7 from which the following conclusions may be drawn: pitch-referential elements are determined either by conventional

cadential action (mm. 5-6, 44-45, and 62-63 tonicize F, A^b and F respectively), or by assertion through repetition. These tonal procedures reflect, once again, the functional/non-functional interplay.

Example 7. Song 3, Larger Structure.

One of the most interesting passages in the entire cycle occurs in this song in mm. 24-40. It consists of a model (mm. 24-29²) and three variations of it (mm. 29³-32, 33-37², and 37³-40). The constituent elements of this model are outlined in Example 8¹⁷. The overall motion, observable in the bass line, is C-Db-C. It may be interpreted as middle-

¹⁷In this reduction, bar 27³ has been omitted because it represents an obvious extension of D^b, the neighbor-note to C at 27¹.

Example 8. Song 3, Mm. 24-29.

mm. 24 25 26 27 (27³-28) 29

voice 1

voice 2

voice 3

ground reflection of the half-step which forms an important part of the foreground motion. More important however, is the intervallic structure of the voices in the passage. Each voice unfolds ic 4 as follows: voice 3 presents a partial but internally symmetrical fill of the (0,1,3,4) tetrachord; voice 2 proceeds by a series of (0,4) dyads that add up to an (0,4,8) trichord in m. 29; voice 3 similarly contains two (0,4) dyads. Clearly then, (0,4) functions as a controlling interval both horizontally (in terms of pitch aggregate, observed by inspecting the first and third beats of each measure of the passage under consideration). This is a good example of heterophony or "simultaneous variation." Other examples of the use of heterophony can be found in the first movement of Stravinsky's Symphony of Psalms (the arpeggiated figuration) and the opening dance of The Rite of Spring.¹⁸

Three brief excerpts, Examples 9a, 9b, and 9c, will illustrate the basic organizational principle of melodic process in Song 3. Generally, melodic continuity is achieved by the transfer of terminal elements from one subunit to the next. Thus in Example 9a, the descending fourth of subunit x is transferred to the beginning y, just as the descending major second of y is transferred to the beginning z. Example 9b exemplifies a set-superset relationship between the three subunits. In other words, subunit 3 represents a synthesis of subunits 1 and 2 by adopting and extending the interval succession of 1 and the contour of 2. In Example 9c (from the end of the song), the controlling interval, a descending diatonic fourth marked a is repeated a', varied as b (the fourth now spread over two measures), followed by a further variant c (by the addition of rhythmic subunits to a.) The interval of the fourth thus functions both "syntactically" (in the unfolding of the line) and "structurally" (in delineating the limits of the line—F5-C5). The implicit awareness of interval property revealed by both Examples 8 and 9 may be likened to Stravinsky's description of his own compositional technique as "composing with intervals."¹⁸

One final detail will serve to conclude this discussion of Song 3. At the end of the Song, the child tells of how the beetle sat motionless on his forehead. Turning to nanny, he asks whether the beetle was really dead (mm. 87-90). This sense of doubt in the child's mind is represented musically, by a joint modal interchange (D and Db in mm. 87

¹⁸As mentioned by Milton Babbitt in his study of Stravinsky, "Remarks on the Recent Stravinsky," in Perspectives on Schoenberg and Stravinsky (New York:W.W. Norton, 1972), p. 167.

Example 9. Song 3, Melodic Process.

a. Mm. 2-4

Musical notation for Example 9a, measures 2-4. The notation is in treble clef, common time (C), and features a key signature of one flat (B-flat). The melody begins with a dynamic marking of *f* (forte) and a hairpin crescendo. The notes are grouped into four segments labeled x, y, z, and z' with brackets underneath. The segments contain the following notes: x (G4, A4), y (Bb4, C5), z (Bb4, A4), and z' (G4, F4).

b. Mm. 36-43

Musical notation for Example 9b, measures 36-43. The notation is in treble clef, common time (C), and features a key signature of one flat (B-flat). The melody is divided into three segments labeled 1, 2, and 3 with brackets underneath. Segment 1 contains G4, A4, Bb4. Segment 2 contains C5, Bb4, A4, G4, F4, E4, D4. Segment 3 contains C4, Bb3, A3, G3, F3, E3, D3, C3, and is marked with a dynamic *f* and a hairpin crescendo.

c. Mm. 77-82

Musical notation for Example 9c, measures 77-82. The notation is in treble clef, common time (C), and features a key signature of one flat (B-flat). The melody is divided into three segments labeled a, a', and b with brackets underneath. Segment a contains G4, A4, Bb4. Segment a' contains C5, Bb4, A4. Segment b contains G4, F4, E4, D4, C4, Bb3, A3, G3, F3, E3, D3, C3. A dashed line indicates a continuation of the melody in a lower register, with a segment labeled c containing G2, F2, E2, D2, C2, Bb1, A1, G1, F1, E1, D1, C1. A 4th interval is marked above the first note of this lower segment.

and 88) and a conflict between tonal rhythm¹⁹ and meter (i.e. the effect of a three-note figure, F-E-C, within a four-beat meter).

Song 4

In this lullaby, the child sings his Tyapa (doll) to sleep. The functional nature of a lullaby suggests that it be brief, repetitive and structurally open-ended. That Musorgsky was aware of these implications is evident from his choice of background pitch material. First, the material is of a restricted nature compared to that of previous songs. Second, its projection depends directly on the passage of time thus making the immediacy of the composition particularly important. The lullaby therefore shows a preference for content-dependent subjective time as opposed to the more absolute measure of objective time.²⁰

One manifestation of the use of limited pitch resources is the compass of the vocal line which consists of a single octave, E^b₄-E^b₅. This pitch collection has been made referable to E^b because it provides the limits of the scale used. In Example 10, the pitch content of the entire vocal line is displayed. There are altogether ten unique pitches (nine unique pc's, since the framing pitch E^b occurs at two octave levels), each of which is projected differently in terms of foreground emphasis.

Example 11 presents a statistical account of the pitch-durational content of the vocal line within the durational span of the whole song.²¹ There are three hierarchic categories of prominence. The first contains the generating pc's E^b and D^b; the second is made up of the supporting (middle level) pc's C, B^b, A^b, while the third category is

¹⁹The term tonal rhythm is used by Carl Schachter in his "Rhythm and Linear Analysis," The Musical Forum 4 (1976), (also 5 [1980]). Examples of this interplay of tonal rhythm and meter can be found at the beginning of the development section of the second movement of Bartok's Music for Strings, Percussion and Celesta, and also in the music to Scene 1 of Stravinsky's L'Histoire du Soldat.

²⁰For an introductory discussion of the differences between these two measures of musical time, see Henry Orlov's "The Temporal Dimensions of Musical Experience," in The Musical Quarterly 65, no. 3 (July 1979): pp. 368-378.

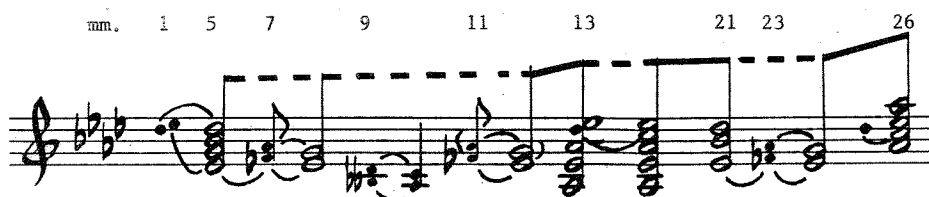
²¹The idea of using such a simple statistical tool was suggested to me by Matt Hughes' "Quantitative Analysis" of Schubert's Moment Musicaux op. 94, no. 1 in Readings in Schenker Analysis and Other Approaches, Maury Yeston, ed. (New Haven: Yale University Press, 1977), pp. 144-164.

occurrence of each note and its durational value."²² The tonality of the song is A^b major, by virtue only of its functional definition and terminal position. The foreground prominence of E^b and D^b is of special significance to the melodic foreground of the song. In addition to its durational prominence, this "generating dyad" occurs in metrically or accentually prominent positions, e.g. as a simultaneity in mm. 1-5, 12-15, and 25-26, and in succession in mm. 18-19. The upward leap of a seventh in mm. 18-19 constitutes the single most expressive foreground event in the entire melodic line. Example 11 also indicates that the five most prominent pitches (A^b-B^b-C-D-E^b) constitute the diatonic pentad of the scale of A^b major. The weighting towards the generating dyad therefore results in a structural ambiguity describable as a conflict between tonality and tonal orientation. This characteristic tension between foreground prominence and background tonal-hierarchical function is an important feature of Mussorgsky's music. In this respect, Mussorgsky resembles the major nineteenth century figures Liszt and Wagner, and particularly Mahler, whose music is characterized, on the foreground, by a profusion of rhetorically prominent non-structural tones. Since, however, the song is ultimately tonal, the generating dyad is eventually absorbed into the harmonic process.

Of the three sections of the song, the first two (mm. 1-11 and 12-22) are equal in length, whereas the third, actually a condensation of the first, is only five measures long (mm. 23-27). A summary of the tonal structure of the song is provided in Example 12. The first section consists

²²Hughes, "Quantitative Analysis," p. 146.

Example 12. Song 4, Tonal Structure.



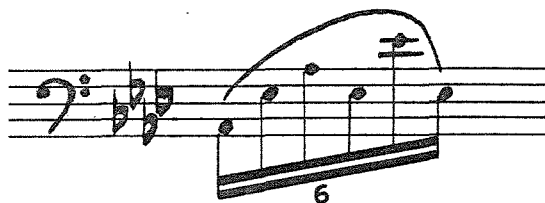
of an "harmonic" event into a "melodic" event; note its absorption into the melody of the second section of the song (m. 13).

Within the generating dyad itself, an important tension results from the functional subservience of D^b to E^b . E^b , a member of both tonic and dominant triads, acquires an added level of importance in this opening section. For example, in the first bar, the generating dyad (0,2) passes through (0,3) to (0,5), holding E^b invariant, while D^b passes to C and B^b . The resulting 2-3-5 intervallic motion is a characteristic feature of the motivic structure of the song.

The harmonic resolution provided by A^b in m. 13 becomes the basis of another ambiguity. On first hearing, the second section may seem merely to prolong the tonic. But a careful examination of tonal orientation reveals an interesting duality. The foreground presentation of the tonic chord is weighted in favor of E^b , the fifth of the chord. The accompanimental figure (See Example 13) could therefore imply either a tonic-dominant succession (assuming an eighth-note harmonic rhythm) or simply a prolonged tonic. This means that the dominant prolongation of the first section is only partially resolved in the second section. The composer's concern, as one may surmise from the foregoing, is not the simple fixed harmonic relationships implied by a diatonic collection, but rather the role of a particular pc, E^b , as a fundamental component of pitch organization in the entire song. Scoring or chord spacing thus becomes a structural factor. This, again, anticipates Stravinsky. The most famous instance of the use of such a device is in the Symphony of Psalms, where the opening E minor triad is scored with a weighting towards G, underlining its structural potential.

The condensed restatement of the first section takes m. 1 (and, by implication, the generating dyad) to its ultimate

Example 13. Song 4, m. 13, Accompaniment Figure.



is the resolution signaled by the arpeggiation of the A^b major triad in the last measure of the vocal line. Just as mm. 5-6 absorbed the ambiguity of the opening measures by a dramatic presentation of the dominant-seventh chord, so m. 26 becomes a reservoir for the ambiguity of the middle section. On a larger scale, therefore, the dominant of mm. 5-6 is answered by the tonic of m. 26. In fact, m. 26 provides the resolution for the entire melodic/harmonic process of the song. In other words, the song moves from "dominant" in the first section, through "partial tonic" in the middle, to a "full tonic" in the final section.

Pitch organization in this song is effected by the function of specific pc's within the nominal key of A^b major. Tonal orientation thus becomes a product of an important dynamic process instituted by a generating dyad which is asserted in parts of the opening of the song and reinterpreted by absorption into a tonal-functional context. An important extension of pitch-organizational possibilities is therefore established by this access between the functional and non-functional tonal domains. The essential unity of the song is derived not from the organizational principles, but from the invariance of the material used.

Song 5

In Song 5, the child says his bedtime prayers while nanny watches. He mentions his father, mother, brother, grandmother, and a seemingly endless list of uncles and aunts. At a loss for words and unable to continue, he turns to nanny, who scolds him for forgetting to ask for forgiveness for himself. Half asleep, the child recites the relevant formula. The interaction between the various personae in this song may be described in terms of a triangular structure involving child, God, and nanny, and represented by the child-God and child-nanny dialogues. The pos-

sibilities for musical structure created by these inner relationships are sensitively exploited Mussorgsky. The most important of these is nanny's interruption, which breaks the narrative and introduces an element of tension with regard to the completion of the structural processes already begun.

The narrative principle implicit in a prayer would seem to suggest that the most important musical feature lies in the foreground of the composition. Mussorgsky, undoubtedly highly aware of this, fulfills this expectation generously by employing a highly eloquent musico-continuing technique reminiscent of the first song. In what follows, I will be concerned with two analytical issues: first, the poetic form and the way it is reflected in the musical form and articulated by the macro-tonal process; second, those local (micro-level) syntactic processes that fill the space between these points of articulation.

The three parts of the poem are the child's prayer (mm. 1-27), the interruption of nanny (mm. 27-35), and the child's concluding response to nanny (mm. 36-39). The first part is also the longest (occupying about two-thirds of the compositional space) and is marked by a large-scale tonic-dominant progression. The next section represents a complete break of harmonic syntax with the previous section. This is further underlined by a change in the expressive character of the music which, in this context, is symbolic of nanny's role. The disjunction is accomplished by a juxtaposition of the tritone-related pair of triads E^b and A (mm. 27-28), a less active micro-rhythmic process, a change in tempo (actually a return to the pre-accelerando tempo of the previous section), and, finally, a change in texture—punctuating chords in mm. 28-30 leading to an unprecedented unison passage. The restoration of structural balance takes place in the final section. Taking off from where the first section ended (this striking gesture will be discussed presently), it provides a tonal resolution and synthesis of the material of both preceding sections.

A synopsis of the tonal process of the entire song is provided in Example 14. Its major features include the arpeggiation of the tonic triad as the basis of the recurring m. 3 (see also mm. 4 and 17), use of parallelism (mm. 28-30), and a final plagal cadence instead of the conventional authentic one. In the first section, three subsections represent prayer for the child's immediate family, i.e. father, mother, brothers (mm. 1-8); prayer for grandmother (mm. 9-16); and prayers for the extended family (mm. 17-27). Since each of these subsections concludes on a dominant or dominant-functioning chord, it will be instructive to consider the relative functional strength of each chord.

The first dominant (m. 8) is approached via a chromatic

Example 14. Song 5, Tonal Process.

The first dominant (m. 8) is approached via a chromatic bass descending from A^b to E^b (mm. 4-8). The cadence in m. 8 is in fact a half-cadence, on account of the distribution of structural weight within the phrase. Thus, even though the next bar (m. 9) contains tonic harmony which could be said to resolve the preceding dominant, it actually marks a new beginning. The implied disjunction between mm. 8 and 9 may be attributed to the transfer of register, placement of fermata, and a return to earlier material (from m. 2). The second of these dominants occurs in m. 16 and is actually a mediant chord functioning as a dominant substitute. M. 16 may also be interpreted as a truncation of the progression in m. 8; it finishes on the penultimate chord of m. 8. The third dominant occurs in m. 27, and is the most strongly implicative in terms of its voice-leading. Because it so obviously represents the culmination of the dynamic progress of the first part of the song, it may be described as the structural highpoint.²³

To summarize the action of terminal dominants in the first part of Song 5, a large-scale teleological relationship is set up among mm. 8, 16 and 27. In these measures, an initial dominant process (m. 8) is truncated (m. 16) and re-emphasized by registral transfer and the addition of a seventh (m. 27). Before discussing the destination of m. 27, a brief word on the process by which the structural highpoint is established will be in order.

A musical highpoint, by definition, represents the superlative moment in a given linear process. The present context may be described in terms of "statement" and "variation," the latter being the process of expansion that generates the highpoint (mm. 17-27). Thus, m. 17 takes mm. 3-4 as point of departure and proceeds via a series of tonicizations (subdominant in m. 19, dominant in m. 20, etc.) accompanied by a stepwise ascent in the vocal line and a cumulative rhythmic diminution/acceleration to the highpoint in m. 27. These complementary processes serve to reinforce m. 27 as the point of greatest tension.

Example 15 offers a description of the melodic ascent to the highpoint. In this arhythmic reduction, stems and beams mark the direction of the principal points in the motion.

²³The structural highpoint is the most prominent rhetorical/structural moment in a given composition. This theoretical construct, designed to eliminate the dicotomy between rhetoric and structure, is relevant to all tonal music, particularly that of the nineteenth century. (Interested readers may wish to consult the author's Ph.D. dissertation, The Structural Highpoint as Determinant of Form in Tonal Music (Stanford University, 1982).

Example 15. Song 5, Mm. 18-27.

(Example 15)

mm. 18 19 20 21 22 23

pc sets: [02] [02] [01] [013] [01] [01]

24 25 26-27

[0145] [0145] [0]

each bar is indicated as sets of inclusive cardinality 1 to 4. Some interesting conclusions may be drawn from Example 15.

The (0,2,5) trichord in m. 17 functions as an upbeat to m. 18, where the subset (0,2) is used to generate upward motion. In m. 20, (0,2) is contracted to (0,1), leading to a summation of both intervals in m. 21 (i.e. the (0,1,3) trichord contains the components (0,1) and (0,2). Observe also that Mussorgsky takes time to inform the listener of this structural event by temporarily breaking off the process at this point. Mm. 22 and 23 then isolate (0,1) as the tension within the phrase increases. Mm. 23-24 present a dramatic transformation of the hitherto linear process into a bi-linear one. In other words, the foreground presentation of the (0,1,4,5) tetrachord reveals two transpositionally equivalent (0,1) dyads. This then leads to the unit set in m. 27—the highpoint E^b . Clearly then, the establishment of the structural highpoint is accomplished by strong complementary functions of various parametric processes. These include registral expansion by means of stepwise ascent, intervallic and rhythmic diminution, increase in dynamics and foreground emphasis, and, most dramatically, textural transformation. (This complementary functioning of various parameters is remarkably similar to what is perhaps the locus classicus of structural highpoints, the first movement of Bela Bartok's Music for Strings, Percussion and Celesta.)

Mm. 28-35 constitute a musical parenthesis despite the dramatic continuity. This is the point at which the child turns to nanny to find out what is missing from his prayer (mm. 28-31). She scolds him before reminding him of the line, "...Gentle God, watch over me." Musically, this element recalls the generative rhythm of the vocal line:



The child's response incorporates this₃ rhythm:



It is only at this point that the cadential process implied by the structural highpoint in m. 27 finds its completion. In other words, the discontinuity of mm. 27-28 results from an interruption of a harmonic progression. M. 27 therefore leads logically to m. 36. This is by far the most striking pitch-organizational procedure in the song. The disjunction is more subtle than it appears on the surface. The child is indeed "interrupted" even though he continues to sing. What takes place, in fact, is a shift in m. 28 from the principal child-God plane of interaction to the subsidiary child-nanny plane. A synthesis of the activity of both planes follows in mm. 36-40.

The symbolism of the gesture in m. 28 is worth noting.

The symbolism of the gesture in m. 28 is worth noting. Perhaps a word about symbolism in the song as a whole will be in order. (The following is only a general description of foreground descriptive associations. In Mussorgsky's Boris Godunov, similar associations are used consistently throughout the opera.) The descending third is usually associated with the child addressing nanny. An example of this occurs in mm. 28-30. A striking instance of this occurs in the penultimate bar of the song, where the child turns to nanny to find out whether the addition of the formula to his prayer is sufficient. (Other examples of the use of the minor third can be found in Song 1, mm. 1-2, 14, 44, and in Song 2, m. 58.) The descending half-step, on the other hand, is associated with fear. Again the parallelism in mm. 28-30 by descending half-steps mirrors the fear with which the child turns to nanny. Similar uses of the half-step occur as follows:

Song 1, mm. 36³-39 (L.H. of piano)
 Song 2, mm. 31⁴-32², 34 (L.H.), 58
 Song 3, mm. 36-43, 50, 55-59, 88⁴-90²

The tritone is also associated with fear and uncertainty, as in mm. 27-28. The tritone occurs similarly in mm. 5, 31³-32², 39³-40¹ of Song 1, and in mm. 22 and 46 of Song 3. Another aspect of characterization in this song is the association of disjunct melodic motion with nanny, as opposed to the child's generally conjunct motion. Also, the main source of tonal variety is the parts of the song associated with nanny (for example, reference to A minor in m. 35). In general, child and nanny are represented by, respectively, clear and ambiguous tonal orientation. This is consistent with other songs in the cycle.

Like Song 1, Song 5 has an unusually continuous melodic foreground. One example will suffice to illustrate this characteristic. Example 16a shows the vocal line of the first eight bars; the basic principle of melodic motion consists of the transference of terminal subunits from one major unit to the next. This may be described abstractly as follows: given a segmentable unit A containing elements a, b, and c, unit B, its successor, will begin with the elements b and c and proceed by adding other elements. Similarly, the succeeding unit C will take as its point of departure the concluding subunits of B, etc. This principle is illustrated in Example 16b: the minor third that concludes a becomes the basis for b; on the other hand, c utilizes the same third (D^b-B^b), filling it with the passing tone C^b . The terminal pitch of subunit c then provides the point of departure for d, etc. The principle is not restricted to the domain of pitch. Sometimes rhythm or contour is involved. For instance, the subunits d and e possess identi-

rhythm. Thus, 
 becomes .

An alternative interpretation of the relationships between the subunits of Example 16 emerges from a consideration of the pc content of each subunit. As shown in Example 16c, the entire line may be heard as a suspension on an axis—the dyad B^b-D^b presented as a. b thus becomes an upward extension, c a modal variation, d and e downward extensions, and f a restatement of a. Song 5 therefore exemplifies two principles of melodic organization: the variation of basic idea, and conjunct motion by the transfer of terminal elements from one segment to the next.

Summary and Conclusion

The results of the preceding analysis may be summarized as follows:

1. Each of the five songs analyzed above is structurally coherent according to the terms set by its own pitch-organizational procedures. Of these, the most recurrent is the alternation of functional and non-functional tonal/harmonic procedures.
2. Many of the pitch-organizational procedures used here anticipate techniques normally associated with later composers notably Bartok and Stravinsky. These include the use of heterophony, chord spacing as a structural factor (and, consequently, a revision of the conventional nineteenth century parametric hierarchy), cellular approach to motivic writing, use of disjunct textures, and numerous conflicts such as tonal organization versus tonal orientation, tonal rhythm versus meter, and so forth.
3. The numerous elements of symbolism which enrich the foreground of these songs (such as the association of tonal functionality and non-functionality with child and nanny respectively, association of specific intervals with specific emotions, etc.) function within the fundamentality of the logic of the aforementioned pitch-organizational procedures.

Example 16. Song 5, Vocal Line Characteristics.

mm. 3 4 5 (6)

3

a b c

a b c

6 7 8

d e f

d e f

The foregoing suggests, in the light of my introductory remarks, a revision of critical attitude towards Mussorgsky. While this analysis acknowledges the problems associated with the use of a variety of technical procedures and the consequent problem of identifying the composer with one of the typical nineteenth century style trends, it shows that the contextual approach adopted here best serves Mussorgsky's music. It also points up the irony in our preparedness (apparently with little reservation) to accept the use of strikingly similar organizational procedures in the music of a later composer such as Stravinsky. The fact that Mussorgsky's music raises questions about structure often associated with the twentieth century should be an indication that a proper study of the music of this century should begin with him. This will, in turn, clarify his contribution to the nineteenth century.