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## From the Editor

It is an exciting time to be a musicologist. As the four articles proudly published in Volume 12 of *Musicological Explorations* demonstrate, the current analytical toolbox in our discipline allows for a luxurious diversity in scholarly approach. Within the pages of this issue, one will find tried and true tactics pursuing under-studied topics alongside novel and unique methodologies applied to more classic areas of research.

While Heather Olaveson examines the *Lieder* of the often over-looked twentieth-century composer, Alexander Zemlinsky, contributor Sarah Davachi proposes explanations for characteristics of Ligeti's compositional practice. In contrast, the articles of Dr. Stuart Duncan and Twila Bakker return to more familiar areas of musicological excavation. However, armed with new tools, they eschew predetermined analytical systems and give rewarding analyses of works by two deeply canonical composers, Haydn and Beethoven.

The publication of this volume is the result of a dedicated editorial team made up of graduate students from the University of Victoria's School of Music. We would like to thank Dr. Jonathan Goldman for his guidance during the publication process as well as the University of Victoria's Music Library and the Graduate Students Society for their support. Finally, we thank our contributing authors for their fine contribution to the ongoing musicological discourse.

Michael Dias, MMus  
Managing Editor

## Blurring the Boundaries: Toward a Multivalent Reading of Three First-Movement Sonata Forms in Haydn's Op. 50 String Quartets

Stuart Paul Duncan

Over the past quarter century, commentators have lamented the lack of detailed discussion of Haydn's opus 50 string quartets. W. Dean Sutcliffe, in his monograph on the quartets, notes that opus 50, "finding itself in the middle of the oeuvre ... has received a disproportionate amount of inattention."<sup>1</sup> More recently, in their 2006 volume, Floyd and Margaret Grave have suggested that the tendency to overlook op. 50 is understandable given "the works' absorption in structural and textural complexity, their unrelenting attention to motivic process, and certain peculiarities of their melodic idiom."<sup>2</sup> Indeed, the majority of commentators, finding themselves in the difficult position of balancing the larger picture of Haydn's work with the analysis of individual opuses (and consequently individual works and movements), have tended to provide only a brief evaluation of op. 50.<sup>3</sup> Furthermore, the first movement of op. 50 no. 3 has re-

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<sup>1</sup> W. Dean Sutcliffe, *Haydn: String Quartets, Op.50* (Cambridge: Cambridge University Press, 1992), 40.

<sup>2</sup> Floyd Grave, and Margaret Grave, *The String Quartets of Joseph Haydn* (New York: Oxford University Press, 2006), 243.

<sup>3</sup> Among them Reginald Barrett-Ayres (1974), H.C. Robbins Landon (1978), and Grave and Grave (2006).

ceived little critical examination from the point of view of the movement as a whole.

Usual analytical methods have been unable to provide for a more extensive examination of these quartets. Hence, a methodology that is sensitive to the individual salient characteristics of each movement as well as normative sonata-like frameworks will inform the hermeneutic approach of this article, providing one possible reading of the works' structural and textural complexity. My initial concern will be to examine how Haydn's opening gestures in the first movements of the first and sixth quartets generate structural ambiguity, blurring the boundaries of their respective moments of recapitulation. Following this, I demonstrate how Haydn employs competing melodic ideas in the first movement of the third quartet, destabilizing the normative sonata-procedures to the point of obscuring the moment of recapitulation altogether.<sup>4</sup>

The methodology employed in this paper is influenced by James Webster's "multivalent" analyses of sonata-style works. These analyses foreground the individual characteristics of a movement before considering normative *a priori*-forms: "In multivalent analy-

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<sup>4</sup> The term recapitulation in this paper, as defined by Hepokoski and Darcy (2006, 231-254), involves, in the normative-case, a post-developmental reconsideration of the exposition's formal design. As Hepokoski and Darcy note: "Whatever its local variants (or, in the case of the constantly original Haydn, however protean its compositional recastings), the recapitulation provides another complete rotation through the action-zone layout initially set forth in the exposition" (2006, 231). Hence the multivalent analysis of op. 50 no. 3 i is considered in light of this normative formal design.

sis, a musical work is understood as encompassing numerous different ‘domains’: tonality, musical ideas, rhythm, dynamics, instrumentation, register, ‘rhetoric’ design, and so forth.”<sup>5</sup> Privileging select domains, according to Webster, generates a theoretical framework against which a wide variety of pieces can be examined, but the resulting analysis is in danger of subsuming the unique characteristics of the individual works at hand. Thus Webster’s methodology does not privilege specific domains prior to the work’s analysis and is more sensitive to its individual characteristics.

Two of Webster’s multivalent analyses are of particular interest here: One, his analysis of the first movement from Beethoven’s Piano Sonata op. 10, no. 3 (“Dahlhaus’s Beethoven and the Ends of Analysis”); and two, his analysis of the finale of Beethoven’s Ninth Symphony (“The Finale of Beethoven’s Ninth Symphony”). Both articles exhibit a strong skepticism of analyses that assert a particular domain’s form-defining value *prior* to the examination of the piece at hand and subsequently coerce non-privileged domains into lining up analytically with the prioritized domain—such approaches privilege unity in their resulting analytical charts. As Webster conceives it, “the method entails suspending, at least temporarily, the assumptions that unity is a criterion of value, and that the goal of analysis is to demonstrate its presence.”<sup>6</sup>

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<sup>5</sup> James Webster, “James Webster & The Concept of Multivalent Analysis,” in *Musical Form, Forms & Formenlehre: Three Methodological Reflections*. Edited by P. Bergé. (New York: Cornell University Press, 2009), 128.

<sup>6</sup> Ibid., 129.

Furthermore, multivalent analysis, according to Webster, “in its deliberate attention to multiple domains of the musical work, [...] invokes, and implicitly utilizes the results of, multiple theories.”<sup>7</sup>

With its distinctly non-hierarchical approach and acceptance of multiple readings, multivalence has come under recent criticism. William Caplin points out that “what is largely missing from Webster’s essay is a consideration of the theory that grounds the observations ensuing from his analytical methodology.”<sup>8</sup> Caplin asserts that certain domains, which for him are part of a “form-functional reading,” should provide the starting point, with secondary domains evaluated only in light of these “grounded” ones.<sup>9</sup> For him, only certain domains “such as harmonic progression, cadence, and grouping processes”<sup>10</sup> can act as form-defining domains, which, according to Webster, draw from an underlying assumption that “analyses and analytical methods *must* be linked to some single, explicitly formulated theory of form.”<sup>11</sup> Though these domains may well turn out to be the most important

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<sup>7</sup> Ibid., 152.

<sup>8</sup> William E. Caplin, James Hepokoski, and James Webster, *Musical Form, Forms & Formenlehre: Three Methodological Reflections*. Ed. by P. Bergé (New York: Cornell University Press, 2009), 145.

<sup>9</sup> Ibid., 144-145.

<sup>10</sup> Ibid., 145.

<sup>11</sup> Webster, “The Concept of Multivalent Analysis,” 152.



factors driving sonata-form rhetoric in eighteenth century composition, challenging this assumption may reveal other interpretational avenues based on typically undervalued domains.

In *Musical Form, Forms & Formenlehre*, Webster's chart-based analysis of Beethoven's op. 10, no. 3 demonstrates his method of a multivalent analysis (Example 1a and b). From this multivalent reading, Webster notes that measures 17-22 exhibits a double identity; it can be interpreted as the end of an opening gestalt through its adherence to the opening theme and it can also be interpreted as a "beginning-over, a new antecedent" generated by the "instability of m. 22" which "forces the music onwards ... all the way to the structural cadence in the dominant in m. 53."<sup>12</sup> From the multivalent chart the dual function of measures 17-22 come to the fore with the "theme" domain segmenting the form in a contrary fashion to the "harmonies" and "structural cadences" domains.<sup>13</sup> It is these types of domain conflicts that then invite further interpretation.

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<sup>12</sup> Ibid., 131.

<sup>13</sup> Previously, Webster employed this chart in Webster, "Dahlhaus's Beethoven and the Ends of Analysis," *Beethoven-Forum* 2: 205–228. Here, the multivalent chart stands in direct contrast to Dahlhaus's chart where each domain lines up in order to emphasize the unity of the work. The chart-based form of multivalent analysis is therefore sensitized to differences between various domains in contrast to Dahlhaus's unifying approach.



**Example 1a.** Beethoven, op. 10, no. 3, i, measures 1-4 and 16-22.

James Hepokoski, however, raises an important issue; that without an existing hermeneutic theory, multivalence as a method “falls short both in its contentment merely to map out these scattered parameters and in its subsequent reluctance to harness the data into a more trenchant interpretation of the piece at hand.”<sup>14</sup> Hepokoski points to the danger that multivalent analysis simply ends up translating the score into a chart-based format without an interpretative framework. Thus pointing out overlapping domains, as in the analysis above, tells us more about how the analyst views that role of structural cadences in parsing periodic structures than it does about measures 17 to 23 acting in some dualistic manner.

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<sup>14</sup> Caplin, Hepokoski, and Webster, 146-147.

Measure	I	5	11	17	23	31	38	47	53b	56b	60b	63b	67	71	75	87	94	105b	114	120
Sections	iGr			Tr + Cad.					2Gr										(OL?)	
Themes	1a	1b	1b	1a	2				3 (motive a?)				4 (motive a)				5 (=t)	6	7 (a)	
Caesuras <sup>1</sup>				II								II						I		I
Harmonies; Structural cadences <sup>2</sup>	V	I	I	3	vi	II	vi — V — I — vii V — V — I	V												
Consequent	a + c + c	c	a + c (higher-level)	a + c (higher-level)					a + c + a + ?				c (higher-level)				V pedal	V	pedal	(V <sup>7</sup> )
Phrase- rhythm <sup>3</sup>	4 + 6 + 6 + 6	4 + 4	4 + 4	16 (=8)					(3 + 4) + (3 + 2)	4	2 + 2	3 × 4	8 (=4)	3 × 4	2 × 4	3 × 2 + 4				

- Vertical bold-face line: stable caesuras. Diagonal lines: breaks off in unstable manner.
1. Vertical line: lower-level cadences (shown with respect to A as tonic from m. 23 on). Lower line: structural cadences (always reckoning D as tonic).
2. Upper line: lower-level cadences and important harmonic degrees (shown with respect to A as tonic from m. 23 on). Lower line: structural cadences (always reckoning D as tonic).
3. Hypometer on the two-bar level in bars 38–53 (16 notated downbeats = 8 'real' downbeats) and 87–93 (7 notated downbeats = 4 'real' downbeats).

**Example 1b.** Webster's multivalent analysis of Beethoven, op. 10, no. 3, i (2009, 130).

Webster's method requires that the "analysis should proceed one domain at a time, with little attention to what happens in the other domains, and without preconceptions as to the overall form."<sup>15</sup> Such an approach, however, denies a formal interpretation of the structure until after a somewhat clinical separation of individual domains. A multivalent analysis should, instead, take into account formal issues synchronously with its domain segmentation when dealing with pieces that display sonata-like rhetoric. In other words, a work's interpretation can only come about through a diachronic lens that takes into account the interactions of domains over the course of the work *in* dialogue with normative sonata-forms of Haydn's time. The following analyses on the one hand attempt to address a lack of analytical scholarship regarding several movements from Haydn's op. 50 quartets, and on the other, attempt to demonstrate how an altered approach to employing multivalent analysis offers new interpretational avenues adequate to each work's structural complexity.

### **Part 1: Op. 50, 1<sup>st</sup> Movements of Nos. 6 and 1**

Haydn's first movement of op. 50, no. 6 opens with a four-measure auxiliary cadence functioning as an initiatory gesture elided with the next phrase (Example 2). This gesture demonstrates not *mere* attention-grabbing rhetoric, but rather a descending melodic figure that

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<sup>15</sup> Webster, "The Concept of Multivalent Analysis," 129.

plays a crucial role in the sonata-form rhetoric of the movement. Measures 55-57, which mark the beginning of the development, correspond closely to the opening three measures. In the first of these measures Haydn repeats the opening 1<sup>st</sup> violin's descent exactly, in the second measure he alters the harmony, and in the third measure he pursues a rhythmically similar, but harmonically alternative, path. Haydn's usage of this three-measure gesture--and in particular the descending 1st violin motive--in both the exposition and development sections mark it as formally salient. More importantly we expect the three-measure gesture to return, marking the formal boundary between the development and recapitulation.

The image displays two systems of a musical score for Haydn's string quartet, op. 50, no. 6, first movement. The first system covers measures 1 through 4. It features four staves: Violin I, Violin II, Viola, and Violoncello. 'Idea 1' spans measures 1 and 2, while 'Idea 2' spans measures 3 and 4. The second system covers measures 54 through 58. It also features the same four staves. 'Idea 1' spans measures 55 and 56, and 'Idea 2' spans measures 57 and 58. The score includes dynamic markings such as *f* (forte) and *p* (piano). The key signature is one sharp (F#), and the time signature is 2/4.

**Example 2.** Haydn, op. 50, no. 6, i, measures 1-4 and measures 54-58.<sup>16</sup>

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<sup>16</sup> All examples of Haydn string quartets are based upon the Henle edition published in 2009, used with permission.

At measure 102 the violin's descending idea from the opening cadential gesture returns, though an octave higher (Example 3). The violin's motive, however, differs from its earlier appearances, this time elided with the close of the previous phrase and extending the established sustained dominant harmony. Then the expected correspondence of measures 103-104 with measures 2-3 and 56-57 does not materialize; instead, Haydn presents two transposed iterations of the motive. If we look at measures 104-106, we can see that they correspond exactly to the opening three measures—a correspondence which continues unabated through to measure 114. Does measure 102 therefore function as the point of recapitulation with its attention-grabbing rhetoric and similarity to the opening, or does measure 104, with its ensuing correspondence to the opening gesture as a whole, mark the start of the recapitulation?

As the multivalent chart demonstrates, measure 102 can function as both the close of the development and as the initiation of recapitulatory space through a non-congruence of domains. Two domains are suggestive of a developmental function: In the domain of harmony, measure 102 continues the previously established dominant harmony; and, in the domain of instrumentation, the first violin motive no longer appears solo, instead, it appears within the texture of the entire quartet. With this in mind we could interpret measures 102-103 as a type of caesura-fill whereby the motive slides downwards, joining with the original pitch-level presentation of the motive at measure 104. However, such a reading does not take into account the domain of ideas that emphasizes the gestalt change in measure 102. Idea 1 has been absent for a

idea 1

idea 2

101 102 103 104 105 106

measure

corr. measures

ideas

harmony

pedal

idea 1	transposition	transposition	2
V <sup>7</sup>	(implied)	1	ii <sup>6</sup> V <sup>7</sup>
dominant pedal			

1 exact	2 exact	3 exact
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**Example 3.** Haydn, op. 50, no. 6, i, measures 101-106 with multivalent analysis.

number of measures and its return, though not at the original octave, employs the expected pitches that initiated both the exposition and development. Haydn thus explicitly understates and blurs the structural boundary between the development and recapitulation, a process that is also demonstrated in op. 50, no. 1, i.

Similar to the previous movement, op. 50, no. 1, i opens with a cadential gesture; the cello persistently reinforces the tonic while the remainder of the quartet generates an inauthentic cadence (IAC). Haydn repeats the same gesture verbatim to mark the development--though in G minor and with a dominant pedal instead. Haydn again sets up the expectation of a clear point of recapitulation; we expect the return of the cadential gesture. However, Haydn offers us not one, but two such gestures, generating much debate among scholars as to the location of boundary between the development and recapitulation.

Dean W. Sutcliffe suggests, for example, measure 110 as the point of recapitulation, noting that the tonic has been re-established and the expositional correspondence has begun.<sup>17</sup> Charles Rosen, however, points to measure 108 as the start, commenting that the “precise moment of the return to the tonic is almost unnoticed.”<sup>18</sup> With a third competing view, James Hepokoski and Warren Darcy demarcate

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<sup>17</sup> Sutcliffe, 70.

<sup>18</sup> Charles Rosen, *The Classical Style: Haydn, Mozart, Beethoven* (New York: Norton, 1998), 124.



**Example 4.** Haydn, op. 50, no. 1, i, opening and development.

measure 103 as the start of the recapitulation, asserting that the strong perfect authentic cadence (PAC) in vi implies a “rotational restart” on vi which is shortly followed by a “corrective modulatory shift.”<sup>19</sup>

Measure 109 could also be interpreted as a point of recapitulation where both the home key and introductory cello pedal return. However, due to a less salient cadence—in comparison with the previous one six measures ago—and an elided pedal, the viability of a structural boundary here is problematic. The placement of the recapitulation differs due to the musical domains that each scholar prioritizes and the underlying definition of what constitutes a recapitulation.

<sup>19</sup> James Hepokoski and William Darcy, *Elements of Sonata Theory* (New York: Oxford University Press, 2006), 269.

Under a multivalent reading, measures 103-110 can be construed as both the closure of the development and the start of the recapitulation—an expanded version of the multivalent passage encountered earlier in the sixth quartet.

\* The sources have:

measure	101	102	103	104	105	106	107	108	109	110	111	112
corr. measures			1 rem. 2 rem. 3 rem.					3 v. sim. <sup>5</sup> 4 similar		5 exact 6 exact 7 exact		
idea			idea 1 & 2					idea 2 idea 1		idea 1 & 2 idea 3		
key relative to Bb	(vi)				modulatory				1			
cadences			PAC						IAC			
phrase rhythm	4						2		2		2	
recap. placement	Hepokoski & Darcy						Rosen			Sutcliffe		
instrumentation	quartet	Viola			all except 1 <sup>st</sup> Vln	Quartet		Cello	quartet	paired lines		

**Example 5.** Haydn, op. 50, no. 1, i, measures 101-112 with multivalent analysis.<sup>20</sup>

<sup>20</sup> The two terms, rem. = reminiscent and sim. = similar, note the level of correspondence between measures, taking into account motivic, harmonic, textural and instrumental factors.

## Part 2: Op. 50, No. 3, 1<sup>st</sup> Movement

An analysis of the opening sonata-type movement from the third of the op. 50 quartets, the shortest of the collection, demonstrates an application of the approach outlined above. The opening eight measures of the movement comprise two contrasting ideas that Haydn “complexifies” texturally and structurally during the course of the work. Sutcliffe centers his discussion on these eight measures (shown in Example 6). He emphasizes the importance of the first four measures, asserting that “the rest of the theme consists of feeble attempts to fill out a conventional eight-bar frame.”<sup>21</sup> If the opening four measures are viewed as a compressed sentence structure (i.e. the basic motive inhabits two single measures—rather than the usual four—with a two measure continuation) then idea 2 constitutes a separate identity. However, without a firm PAC in measure 4, the implied PAC in measure 8 draws the two ideas into direct dialogue.

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<sup>21</sup> Sutcliffe, 50. Hans Keller also supports this view in his 1986 monograph *The Great Haydn Quartets*. Keller notes the first movement’s short, sharply articulated opening phrases, but chooses to focus extensively on the movement’s opening measure. See also Barrett-Ayres in *Joseph Haydn and the String Quartet*, where he suggests that it may be possible to argue successfully that the entire piece is built on the first measure alone.

**Example 6.** Haydn, op. 50, no. 3, i, measures 1-8.

The first part of this analysis focuses on the relationship between ideas 1 and 2 in terms of their temporal separation (measures 1-8), juxtaposition (measures 9-12), and conflict (measures 18-21) —the latter in relation to the normative main theme transposition process. The second part considers how the conflict generated between ideas 1 and 2 disrupts the development. This disruption is encountered with greater intensity in the recapitulation, forming the third part of the analysis.

Analysis of the two consecutive opening four-measure phrases reveals several differences. They differ not only texturally and motivically, but also in their approach to cadential function. The chordal accompaniment articulates the harmonic domain of idea 1, while idea 2 relies on its arpeggiated motivic profile

to imply harmonic motion. The close of idea 1 lacks harmonic closure as it comes to rest on a first-inversion tonic chord. Idea 2, however, implies closure with its upward scalar motion toward the tonic note, which remains unharmonized. Ideas 1 and 2 also contrast through gesture; idea 1 follows a rising profile ending an octave higher, while idea 2 begins and ends on the same pitch with an arpeggiated figuration that rises and falls around a central axis. In other words, idea 2 remains static in contrast to the migrating gesture of idea 1. These ideas achieve still greater distinction through an exchange of textural treatment; idea 1 commences with staccato articulation, notated with strokes rather than dots, and followed by a rapid slurred figure. Conversely, idea 2 starts with a slurred figure, culminating with staccato articulation.



**Example 7.** Haydn, op. 50, no. 3, i, measures 9-12.

The temporal separation of ideas 1 and 2 in the opening eight measures ceases in measures 9-12 (Example 7). Here, the ideas are temporally juxtaposed: the violins present idea 1, while underneath, the second half of idea 2 passes back and forth between the second violin and viola. The tonic pedal that underpins this

passage, which lacks a PAC, provides the necessary grounding of E-flat major.



**Example 8.** Haydn, op. 50, no. 3, i, measures 18-22.

Following the caesura in measure 17, Haydn begins returns to idea 1 rather than offering a new idea, which Sutcliffe interprets as fulfilling a monothematic function (Example 8). Alternatively, Michelle Fillion suggests the term main theme transposition for this normative approach where “the secondary tonic area begins with a clearly recognizable transposed variation of the opening of the main theme.”<sup>22</sup> Fillion notes how often the main theme transposition is a “quite literal repetition of the opening of the first group, expanded to two or more measures in length.”<sup>23</sup> However, unlike other quartet movements that employ a main-theme transposition—such as op. 33, no. 1—in a straightforward manner, op. 50, no. 3, i treats idea 1

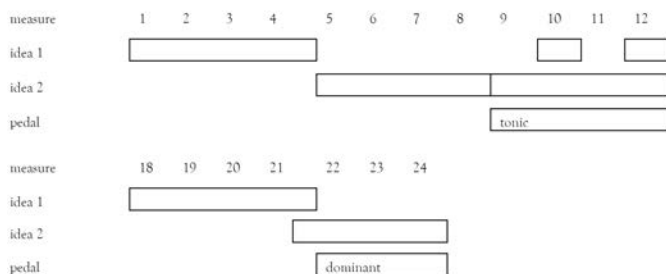
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<sup>22</sup> Michelle Fillion, “Sonata-Exposition Procedures in Haydn’s Keyboard Sonatas,” in *Haydn Studies: Proceedings of the International Haydn Conference. Washington, D.C. 1975*, ed. by J. P. Larsen, H. Serwer, J. Webster (New York: Norton, 1981), 479.

<sup>23</sup> *Ibid.*, 479.

quasi-canonically before juxtaposing and complicating an idea 2 like-motive over the top of the last entry.<sup>24</sup>

Haydn discontinues the clear cut phrase structure of the first group (measures 1 to 17) in the second group, dissolving idea 1 into a sustained dominant in measure 21 and bringing idea 2 temporally forward from the expected normative entry in measure 22. Idea 2 takes on a greater role and dominates the next 16 measures. The pedal, which had previously underpinned ideas 1 and 2 in measures 9-13, now focuses exclusively on idea 2. Previously, the pedal lay outside of the opening eight-measure unit; now it finds itself within idea 2's space.



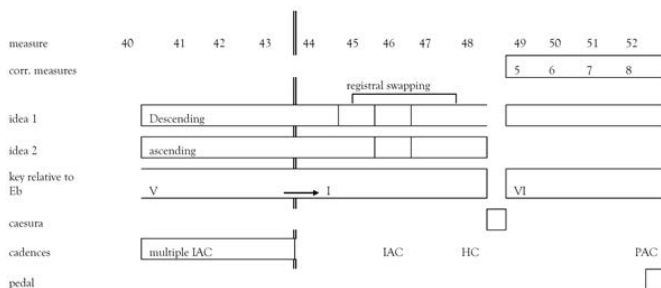
**Example 9.** Haydn, op. 50, no.3, i, measures 1-12 and 18-24, multivalent analysis focusing on idea and pedal domains.

<sup>24</sup> This juxtaposed passage shares a strong rhythmic similarity with idea 2 through two groups of three eighth-notes—compare the first violin parts of measure 21 with measure 5—and a proportional similarity of a sustained duration followed by faster rhythmic motion.

The rhetorical interplay of ideas 1 and 2 causes formal disruptions throughout the remainder of the work (Example 10), with the inauguration of the development reminiscent of the blurred structural junctions in the first and last first movements of the op. 50 quartets. The beginning of the development is dramatized by the sudden two-octave plunge of the first violin in measure 45. Though continuing the figuration of material from the exposition into the development is not non-normative, it is the only first movement in the opus 50 quartets in which a distinct change of material is *not* brought forth at the beginning of the development. Here, in the opening measures of the development, ideas 1 and 2 swap registral spaces (on a measure-by-measure basis) instead of finishing the registral divergence between ideas 1 and 2 at measure 44. It is only at measure 48 that this registral swapping ceases—a cessation that might help explain the unusual caesura in this measure—before idea 2 provides an explicit return to the expositional material. The harmonic domain also creates a smooth transition between measures 44 and 45; the tonic B-flat major chord at the end of measure 44 is reinterpreted in measure 45 as a dominant 7<sup>th</sup> in E-flat major. Any sense of a cadence defining the end of the development is subverted as the passage stretching back to measure 40 continually repeats a V-I cadential motion.



\*shortened measure in Henle Verlag edition



**Example 10.** Haydn, op. 50, no. 3, i, measures 40–52, with multivalent analysis.

A multivalent reading suggests that measures 44–48 simultaneously act as both the formal beginning of the development (which shares a correspondence with the opening ten measures) and the conclusion of the process set in motion during the exposition. Measures 45–46 refer back to both ideas from the beginning of the movement—a passage that continues the juxtaposition of ideas 1 and 2 established earlier, which is emphasized through registral swapping. The

blurring of boundaries between exposition and development becomes more evident as we attempt to locate idea 1, in the tonic, to mark the beginning of the recapitulation.

If we look for the opening of the recapitulation with idea 1 then only two places fit the criteria —measures 64 and 113. While the latter of these possibilities occurs too late in the sonata form, the former proves intriguing if we keep in mind the previous examination of recapitulatory boundaries in the first and last quartets. Idea 1 returns in the home key and at the same pitch level that opened the piece and also restores the ascending transposition of a major second that occurs at the opening. The material from measure 63 spills over into measure 64, under-articulating the entrance of idea 1 in its original form; but the sudden reduction in instrumentation provides some articulation. The presentation of idea 1 in the viola (instead of the first violin) is followed by a further development of idea 2. The modulation towards other keys remains development-like, but when weighed against previous analyses, the multivalent properties of this passage suggest a formal juncture. The second possibility, at measure 113, is rejected on the grounds that the majority of the second group has already been recapitulated in the home key.

measure	62	63	64	65
corr. measures			1 rem.	2 rem.
idea 1	sequential			
idea 2				
key relative to Eb	V		I	
cadence	PAC			
instrumentation	quartet		viola / cello	

**Example 11.** Haydn, op. 50, no. 3, i, measures 62-65, return of idea 1 suggesting recapitulatory tendencies with multivalent analysis.

The recapitulation may start under different conditions due to both the lack of a recapitulatory structural juncture (initiated by idea 1) and the individual characteristics of the piece (exhibiting a fractious formal relationship between ideas 1 and 2). Such different conditions are natural according to Rosen, who comments that: “In continuing to use the term recapitulation we must not assume that the 18<sup>th</sup> century composer was required to begin at the head with the first theme, or that he had to go over the whole of the exposition. Indeed, it was possible to begin anywhere

in the first group.”<sup>25</sup> This leads to Rosen’s hypothesis that idea 2 may begin the recapitulation instead. Idea 2 returns in measure 82 after a key-wrenching and dramatic “abortive cadence” in A-flat major and with altered instrumentation.<sup>26</sup> But this is not enough to suggest a recapitulation (Example 12). Rather, this passage prepares us for the return to the home key in measure 88 with idea 2’s original instrumentation (with reference to the exposition). Rosen regards this second iteration, beginning at measure 88, as the start of the recapitulation, the first as a “false recap.”<sup>27</sup>

Furthermore, after measure 88, material corresponds closely to the exposition. With measures 5-6 returning at measures 88-89, only measures 90-93 lack a direct correspondence to the exposition. Under the premise that Haydn is presenting a restatement of the exposition, this three-measure passage would have included material from measures 7-25, material infused with idea 1. The replaced material in measures 90-93 emphasizes idea 2—here presented in the bass beneath a reattacked B-flat pedal point—instead of referring back to idea 1. Therefore, if we take measure 88 as the start of the recapitulation, idea 1 is absent for the following twenty measures; from a narrative perspective, idea 2, having reached a level of independence, now formally overrides idea 1.

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<sup>25</sup> Charles Rosen, *Sonata Forms* (New York: Norton, 1988), 285.

<sup>26</sup> Rosen, *The Classical Style: Haydn, Mozart, Beethoven*, 158.

<sup>27</sup> Haydn’s use of idea 2 in opening the recapitulation is another reason to be wary of Sutcliffe’s claim that idea 2 is ‘feeble.’

measure	82	83	84	85	86	87	88	89	90	91	92
corr. measures	5 sim.	6 sim.	5 rem.	6 rem.			5 exact	6 exact			
idea	2	2	transition			2	2				
key relative to Eb	IV	ii					I				
pedal	tonic					inv. tonic					
instrumentation	vln. 2 / viola		quartet			vln. 1 / vln. 2		quartet			

**Example 12.** Haydn, op.50, no.3, i, measures 82 to 92, with multivalent analysis.

Measures 82 to 88 function multivalently through several pre-established formal domain characteristics: 1) The clear phrase rhythm established in measures 1-12 (compare Examples 9 and 12); 2) the use of pedal as a consolidator of post formal-juncture territory (appearing eight measures after the opening in measures 9-12, and eight measures after the inception of the development measures 52-54 –the only places where the pedal is employed in the movement); and 3) repeated references to idea 2 as correspondent with measures 5-6. Rhetorically, starting the recapitulation in the absence of idea 1 suggests not only a continuation of the divide between the two ideas, but also the

gradual accumulation over the course of the work of the form-defining ability of idea 2. A multivalent reading suggests that idea 2 not only acts as a continuation of idea 1 but also *as* idea 1 from a formal perspective.

Rosen's analysis of op.50, no.3, i focuses on Haydn's witty and ingenious departures from formal conventions; he notes that the general trend during the 1780s was to bring about the return of the beginning of the main theme at the same time as the opening key. Therefore, Haydn's op.50, no.3, i "[plays] a wonderful historical joke by recalling an old-fashioned convention" of not starting the recapitulation with the opening material of the exposition.<sup>28</sup> To Hepokoski and Darcy, however, measure 88 reveals "an unusual variant of a Type 2 sonata with a surprisingly early 'crux' point (mm. 88 [*sic.*] = m. 5; this is preceded by a 'redundant,' false-crux on IV in measure 82; because this is a Type 2 sonata the specific term 'recapitulation' or 'false reprise' at either of these points is misleading)."<sup>29</sup> Their evaluation of measures 82 and 88 as formal junctures correspond to Rosen's view, but, their conclusion differs. The term "crux" indicates the point in the music where the recapitulation corresponds to the exposition, more or less measure-for-measure. So far, this would seem to match Rosen's reading. However, there is an important difference; the crux acts as a moment of "regrouping" that occurs towards the beginning of the recapitulation, the

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<sup>28</sup> Rosen, *The Classical Style: Haydn, Mozart, Beethoven*, 158.

<sup>29</sup> Hepokoski and Darcy, 239.

work's previous measures have departed from the original exposition-recapitulation correspondence.

Therefore, in Hepokoski and Darcy's reading, measure 88 cannot act as the start of the recapitulation and, instead, they retrospectively look through the movement in order to find a suitable appearance of idea 1 with which the recapitulation can begin. This search leads them all the way back to the start of the development given that idea 1 is not featured in the development, resulting in the conclusion that "Type 2 sonatas do not have recapitulations at all, in the strict sense of the term. Instead, their second rotations have developmental spaces grafted onto tonal resolutions."<sup>30</sup> This intriguing reading differs from our earlier assertion of idea 2's formal stature at measure 88, and places a greater emphasis on the role of idea 1. Moreover, their reading lends further support to the way in which the two ideas act multivalently throughout the piece inviting multiple interpretations.<sup>31</sup>

Just when the formally intriguing design of op.50, no.3, i seems to have played out its structural complexities, Haydn offers one more twist (Example 13). At measure 113, after almost two full measures of silence, the opening four measures of the movement return, unaltered. Rosen wonders,

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<sup>30</sup> Ibid., 354.

<sup>31</sup> See Ethan Haimo, "Haydn's Altered Reprise," *Journal of Music Theory* (1998): 340, where the author suggests other factors such as increasing size of the development section and inter-movemental unity as reasons to alter the recapitulation.

Perhaps the movement is really over, even if oddly so. Then the missing first phrase returns. This must be one of the rare moments when a knowledge of history is necessary to enhance one's pleasure in Haydn's wit, although the effect is genuinely funny in itself even for those who do not realize that this is a joke on an old fashioned style.<sup>32</sup>

This joke involves, in Rosen's reading, the absence of idea 1 from the recapitulation, which is then revealed in the coda. The silence before the coda makes the return of the "missing" measure more potent. The lack of PACs until measure 111 lends a greater weight to the sense of closure at this point. The material from measures 40.5 - 44 that closes the exposition, however, has not returned in the tonic key, and given that Haydn often recapitulates material from the exposition to close the work (see op. 50, no. 5, i, measures 166-169; op. 50, no. 2, i, measures 284-289; and op. 50, no. 4, measures 80-83), its absence is noticeable. This absence works against a sense of closure at measure 111. For Caplin, "the primary function of a coda is to express the temporal quality of 'after-the-end' ... Insofar as the coda wraps up loose ends left hanging from earlier sections, it functions as the movement's genuine conclusion."<sup>33</sup> The "loose ends" of op. 50, no. 3, i are tied up with the appearance of both measures 1-4, which were absent from the beginning of the recapitulation, at the beginning of the

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<sup>32</sup> Rosen, *Sonata Forms*, 161.

<sup>33</sup> William E. Caplin, *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (New York: Oxford University Press, 1997), 179.



coda, and measures 40.5-44 as the last four measures of the piece. Thus, even if measures 113-128 are the coda, the binary relationship, between closures on V at the end of the exposition and I at the end of the recapitulation, is still obtained.

In op. 50, no. 3, i, ideas 1 and 2 receive significant expansions in measures 119-121 and measures 125-127 respectively. This is the only time in the entire movement where Haydn employs such a process, serving to underline the dual character of the opening eight measures. Sutcliffe interprets this passage as an attempt to mediate the two ideas: "Just as the original antecedent and consequent are improbably far apart stylistically ... the coda ... attempts to mediate between and overcome the stylistic disunity of the two halves."<sup>34</sup> Alternatively, given the previous interactions of ideas 1 and 2 in light of a multivalent reading, the coda explores the two ideas as individual identities rather than asserting a need for resolution. Such a resolution would suggest that Haydn has been trying to unify them throughout the work. On the contrary, they diverge throughout the movement, asserting their individuality. One example of this divergence can be seen in measures 122-123, where idea 2, having previously remained un-harmonized at this specific pitch level (see measures 5-6 and 88-89) suddenly gains a harmonic profile with a strong PAC (salient for a piece where such cadences are scarce).

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<sup>34</sup> Sutcliffe, 87.

The musical score for Example 13, measures 113 to 124, is presented in four staves. The notation is complex, featuring many sixteenth and thirty-second notes, indicating a fast tempo. The key signature has one flat (B-flat). The score is written in 3/8 time. Measures 113-123 show a complex rhythmic pattern with many sixteenth and thirty-second notes. Measure 124 is a final measure with a repeat sign.

Example 13. Haydn, op. 50, no.3, i, measures 113 to end.

The sudden appearance of harmonic material this late in the movement suggests that it had been “missing” from previous iterations, with measure 84 acting as a placating harmonization within the guise of a false recapitulation. In this scenario, idea 2 could be seen as continually developing throughout the work both motivically and formally (with its association with the pedal, return at the recapitulation and dominance throughout the second half of the quartet). The final measures, instead of resolving the conflict between ideas 1 and 2, stand in registral separation mirroring the end of the exposition. Rhetorically, idea 2 stands in contrast to idea 1; the former continually develops throughout the work while the latter remains static.

Existing literature often characterizes Haydn’s compositional development through the medium of the string quartet.<sup>35</sup> Haydn’s claim that he had written the op. 33 quartets in “a new, quite special way” has led many scholars to gravitate towards these works and their “progressive” aspects.<sup>36</sup> Haydn’s earlier quartets, op. 20 and prior, are thus often criticized as “lacking” or “immature,” with op. 33 revealing “maturity.”<sup>37</sup> The op. 64 quartets —viewed as the “culmination of nearly thirty years of experiment”<sup>38</sup>— have also en-

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<sup>35</sup> Steve Larson, “Recapitulation Recomposition in the Sonata-form First Movements of Haydn’s String Quartets: Style Change and Compositional Technique,” *Music Analysis* 22 (2003), 139.

<sup>36</sup> Grave and Grave, 209.

<sup>37</sup> Reginald Barrett-Ayres, *Joseph Haydn and the String Quartet* (London: Barrie and Jenkins, 1974), 81; Sutcliffe, vii.

<sup>38</sup> Barrett-Ayres, 248.

joyed a privileged status. In addition, these later quartets have been described as new approach to sonata form.<sup>39</sup> Typically these works have been seen as progressive. Having looked at op. 50 through the lens of multivalence we can see that they too are progressive, and therefore, if progressiveness is the yard-stick by which a work is judged, then the op. 50 quartets deserve to be valued in their own right.

Multivalent analysis provides an important and insightful approach to the works based on their own form-defining properties, without prejudging which domains suggest formal play within Haydn's work. In op.50, no.3, i, a multivalent analysis allowed an assessment of the rhetorical trajectories of ideas 1 and 2 without requiring them to conform to any (pre-formal) schema. Only then are generic norms considered creating a salient comparison which emphasizes the multivalent nature of passages or even domains. However, the pertinence of multivalent analysis is not limited to problematic pieces. Responding to the criticisms by Darcy and Hepokoski as well as Caplin, multivalent analysis, instead of rejecting normative compositional schemas and styles, should actively engage with them as part of the methodology. Multivalence can only be used to explore specific ambiguities and unique features of individual pieces if such a methodology is engaged in addition to the measure-by-measure domain examination. Maybe the reasons that scholars have struggled with the op. 50 quartets is because they use tools that do not address the unique

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<sup>39</sup> Ethan Haimo, "Haydn's Altered Reprise," *Journal of Music Theory* 32 (1998), 336.

problems that these quartets exhibit. Multivalence offers a methodology that can address a work's unique properties against normative schemas, thus significant potential for future work lies in the investigation of multivalent analysis.

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## Abstract

Haydn's opus 50 quartets have long been overlooked in favor of their "progressive" neighbours, opuses 33, 42 and 64. Grave and Grave suggest that this is due to their "absorption in structural and textural complexity," which seems to go beyond generic norms. Rather than attempting to understand this complexity, authors have tended to dismiss it, in part because Haydn's approach in these quartets has seemed incompatible with existing methodologies. In particular, unusual approaches to opening movement sonata-type rhetoric have posed a problem for analysts, resulting in an incomplete analytical picture of individual works. Multivalent analysis, which foregrounds the individual characteristics of a movement in lieu of normative *a priori*-forms, offers an approach that is sensitive to the quartets' complexity. Considering the notion of multivalence put forth by James Webster—in light of recent criticism by William Caplin and James Hepokoski—this paper examines three opening movements from the opus 50 collection through the lens of multivalent analysis.



## Tied Up With Strings: Untangling the Rhythmic Complexities of the Second Movement of Beethoven's String Quartet No. 16, Op. 135

Twila Bakker

*"To cut the Gordian knot, is not to untie it.  
Children and lunatics cut that which the poet  
spends his life patiently trying to unravel."*

*-Jean Cocteau<sup>1</sup>*

The second movement of Beethoven's final composition and sixteenth string quartet (opus 135) is rife with rhythmic complexities. It is arguably one of the most metrically dissonant movements included by Beethoven in any of his quartets. This saturation of dissonance is purposeful, as it is used as a principal instrument of organization. In order to highlight the idea of dissonance as an organizational tool, Beethoven takes three rhythmically dissonant ideas and ties them together in innovative and unusual ways. The melodic motives, dynamics, and musical form are thereby all encapsulated within the three central metrical dissonances of D3+1, D3-1 and G3/2, accord-

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<sup>1</sup> "Couper le nœud Gordien n'est pas dénouer le nœud Gordien. Enfants et fous coupent ce que le poète met toute une vie de patience à dénouer." Jean Cocteau, *Le Secret professionnel* in *Le Rappel à l'ordre*. Quoted in Jennifer Hatte, *La langue secrète de Jean Cocteau: la mythologie personnelle du poète et l'histoire cachée des Enfants terribles* (Bern: Peter Lang AG, International Academic Publishers, 2007), 72.

ing to the notation and classification system of Harald Krebs.<sup>2</sup> With these dissonant ropes Beethoven ties the listener up into a situation as complicated as the fabled Gordian knot. This knot will only begin to be teased apart when an understanding of the metrical dissonances and rhythmic complexities of the movement is reached. It is the aim of this paper to help the listener become Cocteau's poet and begin unravelling the first few tangles.

### Finding the Rope's End

With the initial strains of the movement, Beethoven throws his cords of dissonance around the listener. In a very efficient fashion, Beethoven takes three basic dissonance types and creates variety by differing the interactions and the intensities of these dissonances. Through the immediate saturation of dissonance Beethoven triggers an auditory clue for the audience to listen for the moments that are metrically consonant. The duality of extreme dissonance and consonance is characteristic of Beethoven's late period and the late string quartets in particular. Carl Dahlhaus encapsulates the inherent ambiguity of Beethoven's last period when he notes that when "some commentators on Beethoven speak of extreme subjectivity, and others of a retraction in objectivity, is not a chance differ-

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<sup>2</sup> See Harald Krebs, *Fantasy Pieces: Metrical Dissonance in the Music of Robert Schumann* (New York: Oxford University Press, 1999). The designations of D3+1, D3-1 and G3/2 will be explained in text as they arise in the discussion. The designation of "suggested" is the author's own.

ence of opinion but the sign of an ambivalence inherent in the facts of the matter.”<sup>3</sup> The division in the scholarship is symptomatic of the wider populace’s reaction to the late quartets throughout their history. A young Hector Berlioz wrote to his sister Nanci in 1829 of a performance he had attended of Opus 135 a few days prior, stating that “there were nearly 300 people there, and the six of us found ourselves half-dead at the truth of the emotion we felt were the only ones who did not find this composition absurd, incomprehensible and barbarous.”<sup>4</sup> Only a handful of years after the quartet’s composition, it was already dividing its audience’s reaction, with (at least) six individuals being profoundly impacted while the majority of the audience simply could not untangle themselves enough from the quartet to make sense of it.

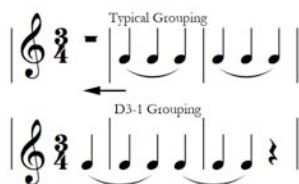
In order to begin the process of untangling ourselves, the three dissonant strands must be identified and subsequently followed through the work. The first dissonance that we, as listeners, experience is D3-1. A note here on Krebs’ nomenclature is needed. The “D” refers to displacement, the initial number refers to the basic grouping duration, the final number refers to the displacement index and the mathematical operator, in this case, the subtraction symbol indicates the direction of the displacement. So D3-1, in an in-

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<sup>3</sup> Carl Dalhaus, *Ludwig van Beethoven: Approaches to His Music*, trans. Mary Whittall (Oxford: Clarendon Press, 1991), 220.

<sup>4</sup> Hector Berlioz, *Selected Letters*, ed. Hugh MacDonald, trans. Roger Nichols (London: Faber and Faber, 1995), 53.

stance where a quarter note equals one, indicates that a grouping of three quarter notes is displaced by one quarter note value in a backward direction from the established framework, as demonstrated in Example 1.



**Example 1.** Abstracted D3-1 in  $\frac{3}{4}$  meter where the primary metrical unit is  $\text{♩} = 1$ .

Strictly speaking, the D3-1 demonstrated in Example 1 is an instance of subliminal dissonance as the notated meter of  $\frac{3}{4}$  is only articulated visually in the score and the downbeat is not announced aurally for the listener. Such distinctions between subliminal and direct dissonance are manipulated by Beethoven throughout opus 135 as a way in which to confuse the listener's auditory experience and deepen the complexity.<sup>5</sup> However, the first instance of D3-1 that is encountered by the listening audience is a direct dissonance occurring in measure 1. This first dissonance is articu-

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<sup>5</sup> Krebs distinguishes between direct and subliminal dissonance in his system of notation. Simply put subliminal dissonance occurs on the music's score and is primarily a visual occurrence for the performer; whereas direct dissonance is experience aurally by the performer and the audience alike. See Krebs, *Fantasy Pieces*, "Metrical Consonance and Dissonance: Definitions and Taxonomy" for more explicit discussion.

lated in the second violin line. It acts against the notated meter, as articulated in the viola and cello lines, until it is momentarily resolved in measure 7, see Example 2.

**Vivace** 5

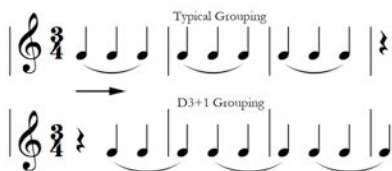
The musical score is for a string quartet, measures 1 through 7. The tempo is 'Vivace'. The key signature has one flat (B-flat), and the time signature is 3/4. The parts are Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Cello (Vc.). The score shows the initial D3-1 dissonance in measure 1 and its first resolution in measure 7. The D3-1 dissonance is circled in the Violin II part. The resolution is marked 'D3-1 Resolution'.

**Example 2.** Initial D3-1 and first resolution of D3-1 in Beethoven, String Quartet No. 16, Opus 135, Movement 2, mm. 1-7.<sup>6</sup>

Within the first 16 measures of opus 135 Beethoven sets the intertwining of the dissonances in motion. Although D3-1 is the first dissonance to be heard, scarcely one quarter beat after it is established, its opposite, D3+1, is heard. Where D3-1 was a backwards hearing of the three layer, D3+1 is a forward hearing of it; see Example 3 for the rhythmic pattern in musi-

<sup>6</sup> All musical examples have been created by the author using the software Finale in consultation with Ludwig van Beethoven, *String Quartet in F major op. 135*, (München: G. Henle Verlag, 2004).

cal notation. As with the preceding example it is a subliminal D3+1.



**Example 3.** Abstracted D3+1 in  $\frac{3}{4}$  meter where the primary metrical layer is  $\text{♩} = 1$ .

The antimetrical layer of D3+1 is articulated on the second beat of the first measure in the first violin line. This offset grouping of three is determined by the tie pattern. The notated meter of the work in  $\frac{3}{4}$  is indicated initially in the viola and cello through the use of durational accents. This forward dissonance continues to be apparent through to the end of measure 16. However, the dissonance of D3+1 does not remain the sole possession of the first violin. In measure 8 it becomes the second violinist's duty. This seemingly innocuous trading of lines is actually a method by which Beethoven adds an extra kink in the cord of dissonance. In the stage configuration of any string quartet, by trading the lines the dissonant part has been moved to another spatial location. Although not directly an issue, the fact that Beethoven has switched physical location while continuing to utilize the same timbre of instrument adds another dimension to the dissonance by manipulation of the listener's aural cues.

After confusing the listener's physical understanding of the location of the articulation of the dissonant line of D3+1, Beethoven adds another element to tighten the knot of metrical dissonance. Instead of both the cello and viola articulating the notated meter as previously, in measure 8 the viola switches to a supporting role for violin I now articulating D3-1. This leaves the cello alone in the attempt to anchor the quartet to the notated meter of  $\frac{3}{4}$ , weakening the supremacy of the notated meter slightly. By measure 15 and 16, the cello no longer maintains the notated meter and the D3+1 above it is no longer aurally dissonant. Although the D3+1 has not changed from the preceding measures, the cello's move away from the notated meter causes it to become a subliminal dissonance. D3-1 continues in the pattern it established earlier and resolves even if only temporarily at measure 7 before beginning a new in measure 9.

From the onset of the movement, Beethoven has directed his audience to listen for interchanging lines, and has focused on the dissonances of D3-1 and D3+1. Through this focus he references the idea of ambivalence. The concentration on D3-1 and D3+1 also suggests an interest in the idea of 3 working against 2. As Examples 1 and 3 demonstrate, in both D3-1 and D3+1, two beats of the  $\frac{3}{4}$  measure are grouped together leaving a single beat orphaned to join another measure. This asymmetrical dichotomy is a way in which Beethoven prepares us for the third and final dissonance that runs through opus 135 movement 2, namely G3/2.

The yet un-experienced G3/2 dissonance is based on note grouping. Hence, the "G" refers to grouping,

and 3 and 2 indicate the layers that are being grouped simultaneously; see Example 4 for a graphical representation of the resulting pattern.



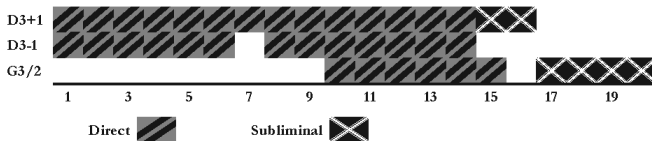
**Example 4.** Graphical representation of G3/2 where  $\text{X}$  is equal to one pulse on the primary metrical layer.

Beethoven's first expression of the G3/2 dissonance in the viola line during measures 10 to 15 is overshadowed by the overwhelming strength of the concurrent D3-1 dissonance obscuring the G3/2's initial appearance. The next utterance of a grouping dissonance is almost as concealed, beginning in measure 17 and lasting until measure 20, as in Example 5.

**Example 5.** G3/2 in Beethoven, String Quartet No. 16, Opus 135, Movement 2, mm. 17-20.



Unlike the first statement of G3/2 which is hidden by stronger dissonances, the second statement of the G3/2 is presented subliminally. In Krebs' nomenclature, a subliminal instance of metrical dissonance occurs when all the musical features present suggest a single interpretative layer, while the notated meter conveys a conflicting one.<sup>7</sup> For Beethoven's knot of metrical dissonance this means that the 3-layer is absent from the aural experience and is only presented visually in the score's meter of  $\frac{3}{4}$ . This causes the G3/2 to be quite surprising when heard in context. Example 6 tracks the changes in the dissonance types within the first 20 measures.



**Example 6.** Metrical map showing variation in dissonance types within first 20 measures of Beethoven's String Quartet No. 16, Opus 135, Movement 2.

Within the first 20 measures of opus 135, movement 2 Beethoven has already introduced to the knot all of the main ropes of dissonance, in both direct and subliminal forms, and has started to constrict and weave them together. If we listen for what is not emphasized

<sup>7</sup> Krebs, 46.

(in a manner similar to looking at an optical illusion to see the negative of the actual image) it is possible to grasp onto one of the dissonant ropes and track its use throughout the knot.

## **Beethoven's Three Ropes of Dissonance:**

### **The First Rope: D3+1**

Though not the initial dissonance experienced in the second movement of opus 135, D3+1 is the most persistent of the dissonances, and is constantly woven into (both direct and subliminal form) or suggested in 290 of the total 372 measures or roughly 78%.<sup>8</sup> The distinction between direct and subliminal has already been discussed, but what is meant by “suggested”? This is the weakest form of dissonance. In the hierarchy of dissonance types, direct dissonance is the strongest and suggested dissonance is the weakest.<sup>9</sup> The first instance classified as a suggested D3+1 occurs in measure 61 and again in measures 63 and 65 in the second violin line (see Example 7). Here the second violinist is playing two notes in repetition. The second note is articulated, so the dissonance cannot be a true durational accent; however, it implies the idea of a durational accent, therefore becoming a suggested D3+1. Another characteristic of the suggested

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<sup>8</sup> Although there are 274 printed measures (272 not including the second endings as separate), due to repetition and second endings the total sound measures equal 372.

<sup>9</sup> The term “suggested dissonance” is the author’s own and does not appear in Krebs’ *Fantasy Pieces*.

dissonances is that they can occur over a segment of time that is not long enough to have any dissonance of significance presented (typically three iterations of the dissonance is enough to establish it) as long as the dissonance has been prepared for the listener by previous substantial exposure, which is the case in measure 61.

The image shows a musical score for a string quartet, specifically measures 59-63 of Beethoven's String Quartet No. 16, Opus 135, Movement 2. The score is written for Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Violoncello (Vc.). Measure 60 is highlighted with a box. The score includes dynamic markings such as *dim.* (diminuendo) and *p* (piano). A bracket labeled "Suggested D3+1" spans measures 60-63. The tempo indication *Vivace* is present at the bottom of the page.

**Example 7.** Beethoven, String Quartet No. 16, Opus 135, Movement 2, mm. 59-63

Although the tempo indication given of *Vivace* is part of the drive ahead, it is not the only factor. The D3+1 creates a forward propulsion in the musical line and the very nature of the D3+1 is inherently progressive, tripping across measure lines and creating an overwhelming state of frenzy. The D3+1 leaves the audience grasping for a stability that never arrives and places us in a position of reaction. We do not understand what is occurring metrically and we are hurried through it rather than being permitted time to absorb and separate out the lines. Here Beethoven allows the

tension of the metrical knot to tighten with the insistent drive of the movement that is reflected and suggested in the D3+1 dissonance.

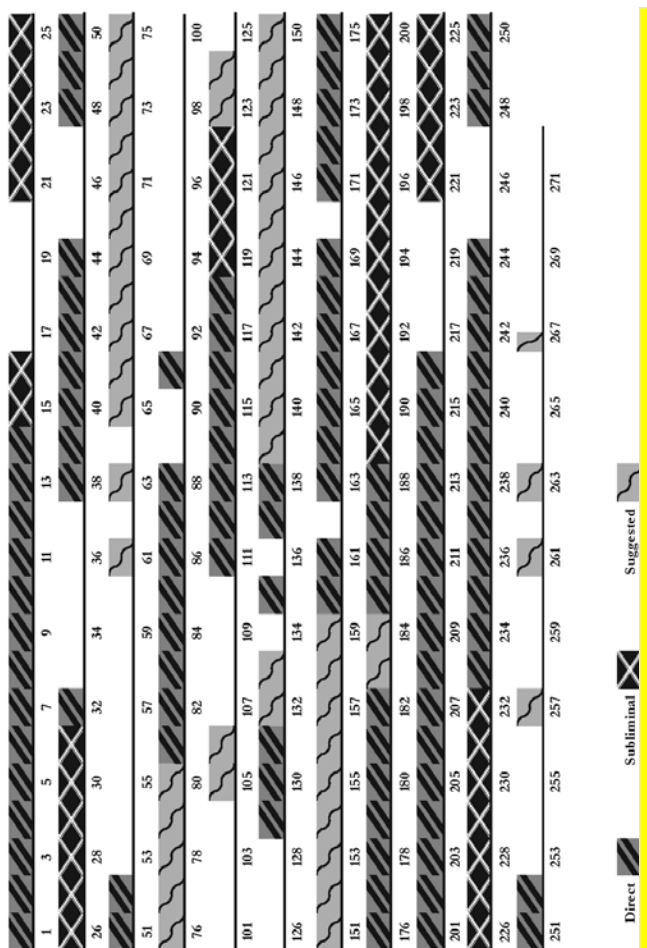
Actual iterations of D3+1 are not the only ones that should be considered necessary in this unravelling. The first instance of a D3+1 occurring subliminally is in measure 15, where the cello is not able to maintain the notated meter alone. It is interesting to note that the subliminal D3+1 only ever occurs after moments of metrical resolution or moments of actual D3+1, and never after a suggested D3+1. This treatment could indicate that the instances of a suggested D3+1 act more like a fleeting auditory illusion or trick like a 'Tartini tone'<sup>10</sup> than a functioning dissonance, because they are not strong enough to stand alone without the support of a fully articulated D3+1 dissonance. (See Example 8 for a metrical map of Beethoven's use of D3+1 in this movement and the conclusion of this paper for a complete metrical map of the interactions of all the active dissonances.)

As Example 8 demonstrates, the suggested D3+1 dissonance is significant in maintaining the level of tension in the middle of the movement, particularly in mm. 139 through 159.<sup>11</sup> As further discussion will demonstrate, the actual dissonances occurring in these measures add poignant dissonant colours that are underscored by this constantly shimmering idea of D3+1.

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<sup>10</sup> Also known as a difference of resultant tone.

<sup>11</sup> Further discussion of measures 139 through 159 will occur in the section, "The Third Rope: G3/2".



**Example 8.** Metrical Map of D3+1 usage in Beethoven's String Quartet No. 16, Opus 135,

## The Second Rope: D3-1

The second rope of dissonance, D3-1, is used less ubiquitously than D3+1, although it is the first to become entwined with it. D3-1 occurs in only 100 of the 372 measures and as such is only active for approximately 27% of the playing time versus the overwhelming 78% presence of D3+1. There is no discernible pattern involving the dissonance of D3-1, with regards to instances of actual occurrence. However, it should be noted that subliminal forms of D3-1 only occur when a subliminal form of D3+1 is active at the same time - only twice (four times with repeats). The occurrences of a suggested D3-1 metric pattern are also very isolated, happening a total of six times within the movement for only one or two measures at time. See the conclusion of this paper for a complete metrical map that outlines these associations. These moments of a suggested D3-1 metric pattern serve as gap fillers. Measures 89 and 95-96 are instances when there are no other active metrical dissonances. By employing a suggestion of this metrical dissonance, Beethoven puts the listener off balance; the suggested dissonance occurs when the last dissonance heard was a forward D3+1. These moments of possible metric resolution that are haunted by suggested dissonances likely cause the listeners to pause in their struggle to unravel the ropes but not to stop outright.

Extrapolating from Beethoven's use of the suggested D3-1 dissonance, it is possible to understand the main usage of all the forms of the D3-1 as not creating an independent type of dissonance but rather as fraying the firm establishment of D3+1 dissonance. After all,

if the D3+1 dissonance were being used constantly without challenge, it would lose some of its power of disruption. By always interlacing the D3-1 with the D3+1 Beethoven creates what is essentially a saturated displacement dissonance that can almost be understood as a dissonance of its own, perhaps D3+1-1. This combination terminology is cumbersome and not at all helpful to the listener snared in Beethoven's metrical knot. Rather it is necessary to understand that the manner in which Beethoven treats an actual D3-1 indicates that he wants to throw the listener off of the scent of the established D3+1, and not that he is creating an innovation in metrical dissonance with a D3+1-1. With the idea of this unwieldy compound dissonance we are once again brought back to the conflicting character of Beethoven's late music that was brought to our attention by Dahlhaus when he stated that "it is characteristic of a late work, on the other hand, that already, while it is still new, it is inwardly alien to the age to which it outwardly belongs."<sup>12</sup>

### **The Third Rope: G3/2**

The final and least employed of all the ropes of dissonances in Beethoven's collection is the G3/2, with both actual and subliminal instances amounting to only 16% of the movement's 372 total measures. In comparison with the 78% of the D3+1 and the 27% of the D3-1, the G3/2 hardly seems worth mentioning. However, the G3/2 is a distillation of the am-

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<sup>12</sup> Dahlhaus, 219.

bivalent nature of late Beethoven. The conflict that is heard with the presentation of a grouping dissonance is not only seen and heard, but also felt. To the listener, the grouping dissonance is far more pronounced than the displacement dissonance as there are two incongruent ideas occurring simultaneously, unlike the displacement dissonance that acts more like a rhythm that just remains the same distance out of phase with itself. The G3/2 is also the most compact form of the grouping dissonance that Beethoven could use, making it all the more poignant.

Employed in its full form, the G3/2 appears only two times in the entire movement. Both instances are three measures in length with the 2-layer assigned to the first violin (as in Example 9), occur mere measures apart and appear at first glance to be identical; however, this is not the case. Their similarity is mirrored in the reduction and abstraction of the complete metrical map found at the conclusion of this paper. Nevertheless, this similarity is not the whole story of the G3/2, in which the differences are entirely encapsulated in the auditory dynamics as can be seen in Example 9.



Measures 143-147

Violin I: *ff* *sf* *sf* *sf*

Violin II: *ff*

Viola: *ff*

Violoncello: *ff*

Measures 151-155

Violin I: *ff* *sf* *sf* *sf*

Violin II: *ff*

Viola: *ff*

Violoncello: *ff*

**Example 9.** Two instances of direct G3/2 in Beethoven's String Quartet No. 16, Opus 135, Movement 2, mm.143-147 and mm. 151-155.

As previously noted, the main source of divergence between these measures is the dynamic markings or,

in the second excerpt, the lack thereof. Concerning the dynamic variation, it should be noted that these *sforzandos* (in violin I) are the only instances in the movement where all the members of the chamber ensemble do not possess the same dynamic level. The first iteration of the G3/2, articulated in measures 143-147, appears on the top portion of Example 9. With the *sforzandos* articulating the downbeat of the measure, the presentation of the notated meter is aided by the first violin line. Then the articulation accent on beat two of measure 145 confirms what has already been heard by the audience as a 2-layer in the register accents of the melodic line from measure 143 on to measure 146. By including the *sforzando* articulations only in the first violin, Beethoven for the first time in the whole movement shifts away from having the string quartet play as one dynamic force. The dynamic articulations also allow Beethoven the ability to include both layers necessary for an actual G3/2 to occur in one melodic line, in this case the violin I. No other instrument within the quartet needs to sound any other note for the G3/2 to occur. This strong G3/2 is weakened in its parallel passage (mm. 151-155), shown on the bottom portion of Example 9, by a removal of these accents. Suddenly the first violin is only articulating the duple layer, and the triple layer is left to the rest of the quartet. It is, however, still a direct G3/2 because of the emphasis on the downbeat lies in the *ostinato* line articulated by the second violin, viola and cello. In this second form of the G3/2 Beethoven twists the same music to allow for a more organic interpretation of it. With the removal of the *sforzando* accents the bowing decisions that can be made by the first violin are much less forced.

The  $G3/2$  dissonance is employed most often as a subliminal dissonance, not its strongest form, but still particularly abrasive. In the introduction and the recapitulation,  $G3/2$  is presented three times subliminally. Typically the dissonance lasts about four measures, long enough to be heard and picked out by unaided listening but not long enough for tedium to set in. This medium length of dissonance is discarded by Beethoven in the final iteration which begins in measure 263. The second time through this music, from mm. 263b<sup>13</sup> onwards, this dissonance lasts an incredible 9 measures. No longer concerned about overuse of the  $G3/2$ , Beethoven utilizes it to bring the movement to a screeching halt. This dissonance, in conjunction with a suggested  $D3+1$  fragment with which it is interspersed, is the final dissonant image that the audience hears. As it is in its subliminal form, it is as if the ropes of dissonance are falling away from us as the final *forte* rings out.

### **Beginnings, Endings and Snarled In-betweens**

As previously noted, Beethoven begins the second movement of opus 135 with the dissonance  $D3-1$  and ends with  $G3/2$ . This might lead some to believe that one of these dissonances is the most central dissonance of the movement. This would be a fallacy. Although not involved in either the very beginning or

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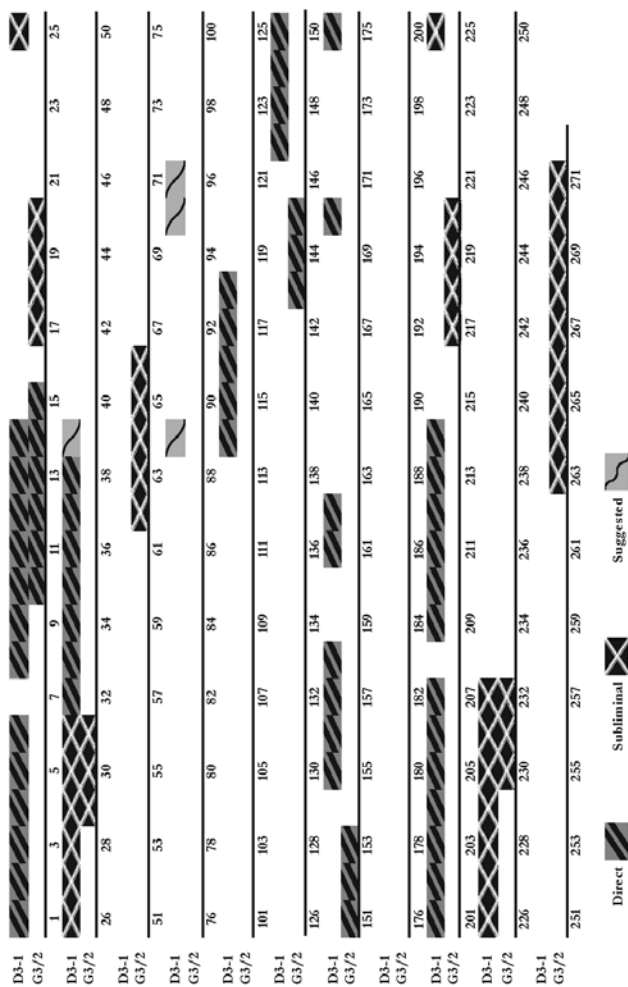
<sup>13</sup> First and second endings will be identified as “a” for the first time and “b” for the second.

the very end, D3+1 is the dissonance that acts most centrally. See Example 10 for a metrical map that hypothesizes what opus 135 movement 2 would sound like without D3+1.

The D3+1 adds a supplementary dimension to the dissonance. Without it, there is little direct interaction between D3-1 and G3/2. In fact there are only two points where D3-1 and G3/2 interact, measures 29-31 and measures 230-232. These instances are additionally interactions between subliminal forms of both varieties of dissonance, making them less audible for a listening audience. Therefore, for Beethoven, the layering and saturation of dissonance that is so characteristic of this movement all lies in the action of the D3+1.

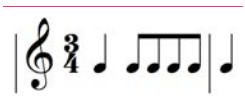
### **The Materials of the Rope**

The materials that form the ropes of dissonance are in themselves knotted together in the same way that Beethoven formed the larger knot. Details of these dissonance types are reflected within the note's duration and the pitch material of smaller musical segments. Within the second movement of opus 135, the note durations are typically quarter and half notes. These are tied together and grouped in a variety of ways, but we are never given any smaller divisions of the primary metrical layer i.e. where the quarter note is equal to one, that is until measure 66b. It is at this point that we encounter the first instance of the rhythmic *ostinato* pattern (see Example 11). This first instance (measure 66b) does not actually appear as



**Example 10.** Metrical Map of Beethoven's String Quartet No. 16, Opus 135, Movement 2 without .D3+1.

part of the *ostinato* pattern; but rather comprises the decorative flourish of a turn motive.



**Example 11.** Rhythmic pattern first experienced in Beethoven's String Quartet No. 16, Opus 135, Movement 2, mm. 66b.

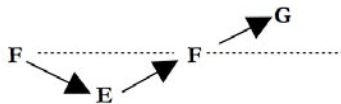
The interesting aspect of this turn motive is that it could be considered as emphasizing either beat 2 in the first measure or beat 1 in the second measure. Beethoven in no way aids this confusion, instead employing both parsings throughout the movement (see Example 12).

	Emphasis	
	Beat 1	Beat 2
Measures	66b	74
	67	83-88
	123	91-92
	143-188	97
		105
		119-123
		129-133
		139-142
		189-192
Total Number of Measures	48	29

**Example 12.** Beethoven's parsing of the turn motive in String Quartet No. 16, Opus 135, Movement 2.

As Example 12 demonstrates, through the beat 2 emphasis parsing apparently occurs more often, the beat 1 emphasis grouping is more prevalent. In a similar manner Beethoven utilizes the disjunction between D3+1 and D3-1 to exploit the difference between a beginning-accented measure and an end-accented measure. A beginning-accented measure would be a measure in which the emphasis occurs in the first half of the measure whereas an end-accented measure would place the emphasis in the second half of the measure. As the piece is in  $\frac{3}{4}$ , an end-accented measure could be anything that is emphasized on beat 2 or 3. Therefore the hearings of the turn figure also embody the same disjointed idea of two versus three that Beethoven employs throughout his metrical dissonance schema.

Outside of, but linked to, the pure rhythm of this figure are the pitches associated with it. These pitches can have an influence on how the rhythm is interpreted, from registral accents suggesting a particular parsing (either 2 or 1 as discussed above) to the repetition of pitches suggesting an accent of duration. This motive in the second movement of opus 135 can be understood as a written out turn. The motive typically involves a step down, a step up, followed by an additional step up (see Example 13).



**Example 13.** Example of pitch formation in eighth notes of turn figure, mm. 66b, violin I of Beethoven, String Quartet No. 16, Opus 135, Movement 2.

By returning to the first pitch in the third beat, the pitch “F” in the case of Example 13, Beethoven links the motive to that of a turn which decorates the main pitch by upper and lower auxiliary notes. The connection of the eighth-note rhythm to that of a turn means that the central pitch, “F” in Example 13, is theoretically sounding for two quarter notes. This is indicated by the dotted line in the example. This theoretically sounding pitch creates a durational weighting of the eighth note figure that metrically now acts as a half note that is seen in the beat 2 emphasis as discussed above. The turn figure is easily audible for the listener, even when it is slotted into an *ostinato* pattern, because there are only three other measures that include a variation from the quarter note and half note oppression. Measures 166, 174, and 179 are the only measures that incorporate a dotted quarter followed by an eighth into any of the lines. In all of these instances, the dotted pattern occurs in the first violin while the second violin, viola, and cello articulate the turn pattern in an *ostinato* repetition underneath. The repetitive rumblings of the turn are very different from the dotted pattern soaring above and as such are very easy to identify.

It is interesting to note that Beethoven takes this pitch based idea of a turn and amplifies it metrically in measures 193-207. This segment of music directly follows the climax of the turn figure being articulated in all the lines of the quartet at the quietest volume indicated in the movement, *ppp*. In measures 193 through to 207, D3+1 is articulated either subliminally as in mm. 193 to 200 or directly as in mm. 201 to 207, as the return of the opening. The motion of these groupings of three follows the same basic pitch trajec-



tory of the turn, utilizing the auxiliary stepwise motion (see Example 14).

The image displays two systems of musical notation for a string quartet. The first system, labeled '195', shows measures 195-199. The second system, labeled '200', shows measures 200-204. The instruments are Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), and Violoncello (Vc.). In measure 200, the dynamics change from *meno* to *p* (piano) for all instruments. The notation includes various musical symbols such as notes, rests, and dynamic markings.

**Example 14:** Beethoven, String Quartet No. 16, Opus 135, Movement 2, mm. 192-204.

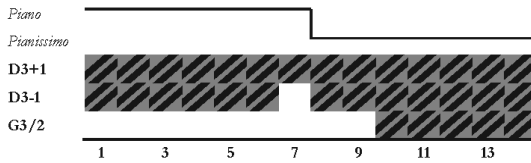
This argument illustrates how the ropes from which Beethoven builds the greater knot are also formed

from threads of twined together dissonances for our unravelling.

### Loosening the Knot

The preceding discussion has dealt with Beethoven's entwining of the ropes of dissonance and the tightening of the ropes around the listener. In fact, the intricacy of the knot becomes more and more apparent during the discussion of the details of each twist and loop. By the employment of the three types of dissonance in conjunction with the motivic features of the turn, which in itself is a microcosm of the larger dissonance, Beethoven weaves all the ropes around us. We need only to begin to loosen them. Beethoven allows us to achieve this by providing an auditory clue to the dissonance pattern: he links the dissonances to dynamics. Major and minor distinctions in the pattern of dissonance are heralded by changes in the overall dynamic level of the quartet.

This lifeline of the dynamics is immediately offered to us by Beethoven. The very first moment with dynamic variation occurs in measure 8. The dynamic level has shifted from *p* to *pp* and the dissonance of D3-1 is articulated again after a momentary resolution in measure 7. The nature of the D3+1 articulated throughout this section also changes at the dynamic shift. The first violin is playing the D3+1 rhythm for the first seven measures, but at the dynamic change the D3+1 shifts to the second violin. The viola also adds to the dissonance at this point, moving to an articulation of D3-1 leaving the cello to present the notated meter alone (see Example 15).



**Example 15.** Metrical map including the dynamic levels of Beethoven, String Quartet No.16, Opus 135, Movement 2, mm. 1-14.

Having been trained by Beethoven to hear inflections in dissonance as linked to shifts in dynamics through the opening of the movement, we can now utilize this link as a tool to pry the ropes of metrical dissonance apart. No longer is measure 1 through 14 an iron block of D3+1, but the dissonance is physically shifted within the ensemble at the precise moment that the dynamic level changes.<sup>14</sup> Such intricacies are lost in the reductive abstract nature of a metrical map, but with the addition of the dynamic mapping we can find a correlation of interest.

The first iteration of G3/2 is, as previously discussed, in a subliminal form, in mm. 10-15. In fact, the G3/2 dissonance begins in the subliminal and eventually surfaces in the direct form before submerging once again into a subliminal form. If we track the occurrences of G3/2 throughout the movement, we see this trend of transition. This trend is also mirrored in

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<sup>14</sup> This shift in dissonance texture is repeated in measures 200 to 214.

the dynamic levels of the G3/2 moments, as is shown in Example 16.

Measures	G3/2		Dynamic Marking
	Subliminal	Direct	
10-15		■	<i>pp</i>
17-20	■		<i>dim. p</i>
29-31	■		<i>cresc. f</i>
62-66	■		<i>p sempre più piano &gt; pp - f</i>
143-145		■	<i>ff - sf - sf</i>
151-153		■	<i>ff</i>
217-220	■		<i>dim. p</i>
229-232	■		<i>cresc. f</i>

**Example 16.** Occurrences of G3/2 in Beethoven, String Quartet No.16, Opus 135, Movement 2.

As the table in Example 16 demonstrates, when Beethoven employs a subliminal G3/2, the dynamics are in transition, moving from one extreme to another. In contrast when Beethoven uses a full G3/2 the dynamic level remains at a constant level and these levels occupy the movement's dynamic extremes.

The dynamic changes do not correspond as simply with D3+1 and D3-1 as they do with G3/2. This is likely due to the higher prevalence of their usage. The shifts however do usually correspond to the entrance or exit of a dissonance. These entrances and exits, however, do not account for all of the dynamic changes, as that would take away from the unpredictable and exciting nature of this movement. Those dynamics that cannot be explained by the entrance or exit of a dissonance could, as in the movement's in-

troductio[n], point the listener towards shifts within the dissonance itself,<sup>15</sup> such as a re-instrumentation or register change in one of the dissonance.

Beethoven draws attention to metrical dissonance through the use of changing dynamic levels. As the dynamics guide the listener to look and listen more closely to certain moments. They provide a particularly useful tool for the listener to loosen the grips of the movement's dissonant ropes and begin the process of patiently unravelling Beethoven's knot.

### **Not Alexander's Solution**

Through the course of this paper, rather than slicing through the knot like Alexander the Great, we have picked at and diligently tugged on the strings of dissonance that Beethoven has looped around us as listeners. We might ask why Beethoven would have put us in the situation of having to unravel our understanding of this movement. It is after all, a mere 372 sounding measures that fly past at an astonishing clip, commercial recordings average between 3 to 4 minutes. Yet Beethoven throws his listeners into a dizzying flurry of dissonances that will continue to bind us until we come to understand. Some scholars have accused the music of Beethoven's late period as obscuring ideas, which might be our initial reaction to this tangle of dissonance. This statement, however, is

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<sup>15</sup> The twelve dynamics shifts that cannot be explained in this manner include the ones present in the following measures: 23, 37, 56-59, 66, 83-88, 144, 145, 148, 186, 237-238, 256-261, 269-272.

perhaps an oversimplification of what Beethoven was attempting. Maynard Solomon, in his biography of Beethoven, approaches this issue differently when he states that “the task he [Beethoven] would set himself in his late music would be the portrayal of heroism without heroics, without heroes.”<sup>16</sup> Accordingly Beethoven is endeavouring with this knot of dissonance to portray the idea of capturing us, but there is also the hope of escape when we use the tools and hints that he provides. Therefore, we have capture without captivity, in much the same way that Solomon finds heroism without heroics or heroes in late Beethoven.

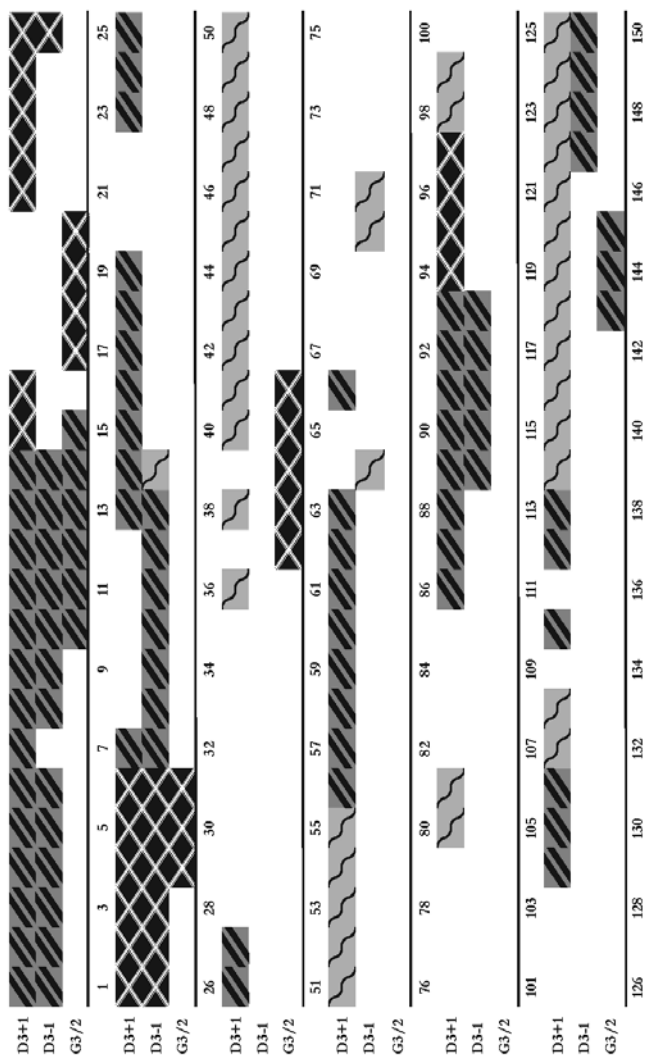
If we believe that Beethoven wanted to obscure his music to the point of unintelligibility, then we can choose to understand him as a maniacal genius who purposefully destroyed his audience's ability to distinguish between layers of dissonance and moments of consonance. However, over the course of untangling these metrical complexities it seems that instead of torturing his audience, Beethoven was inviting them to take on the role of the patient poet, to relentlessly follow the cords of dissonance to their moments of resolution, and then to separate them out from one another, until the legendary Gordian knot lies unravelled in its component parts, for us to see and understand.

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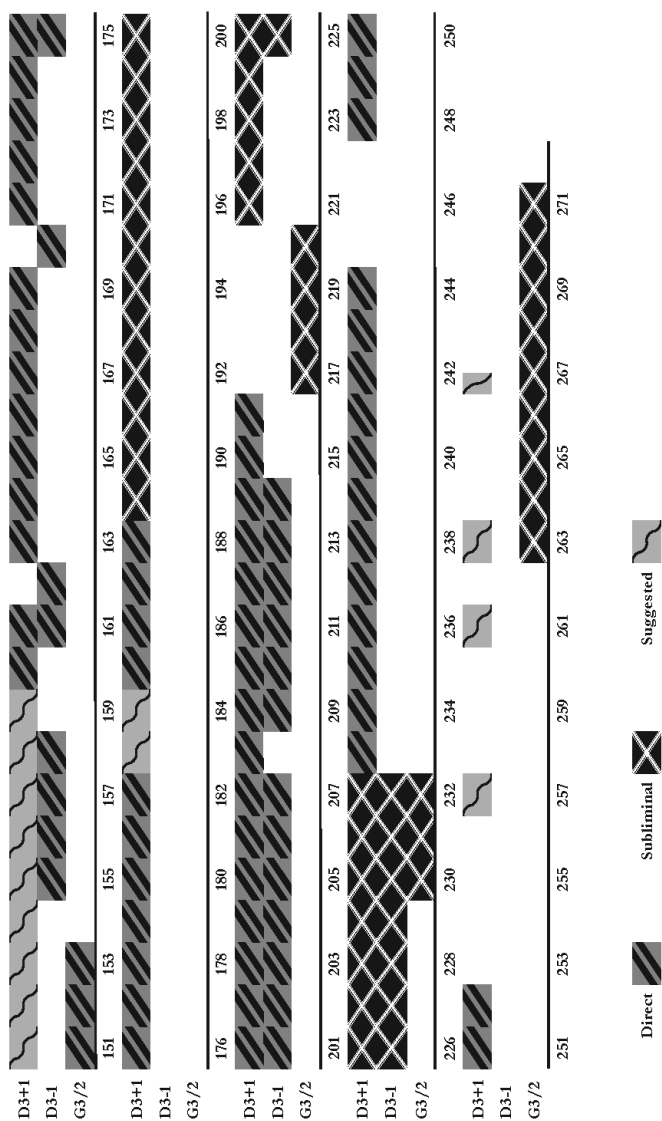
<sup>16</sup> Maynard Solomon, *Beethoven 2<sup>nd</sup> Revised Edition* (New York: Schirmer Trade Books, 2001), 295.



Metrical Map of Beethoven's *String Quartet No. 16, Opus 135, Movement 2, Vivace*







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## Abstract

The complexities of Ludwig van Beethoven's late string quartets have from their inception confounded audiences. These complexities are often incredibly intertwined, at times as tightly wound as the fabled Gordian knot. Therefore, the complexities require extra attention to unravel and understand. Through the lens of metrical dissonance, as pioneered by Harald Krebs in *Fantasy Pieces*, this article aids the listener and performer in unwinding some of the rhythmic complexities of the second movement of Beethoven's String Quartet No. 16, Op. 135. With three central dissonances ( $D3+1$ ,  $D3-1$ , and  $G3/2$ ), Beethoven ties melodic motives, dynamics, and musical form together thereby utilizing the dissonances as organizational tools of composition. This article explores each dissonance in turn and offers one explanation for the ambiguity that has often arisen from performances of Beethoven's late works.



## Death's Voice in Zemlinsky's Lieder: A Comparison of "Ich geh' des Nachts" Op. 6, no. 4 and "Vöglein Schwermut" Op. 10, No. 3

Heather Olaveson

"Alexander Zemlinsky" is not a name easily recognized by today's classical music enthusiasts and concertgoers. Thanks to the efforts of scholars such as Antony Beaumont, however, perhaps Zemlinsky will gradually become more widely known: after editing Alma Mahler-Werfel née Schindler's diaries of 1898-1902, Beaumont went on to publish the first full-length biography of Zemlinsky, Alma's composition teacher. David Allenby hails this biography as the kind of book "which redefines critical perspectives on a composer to such a degree that our understanding takes a quantum leap forward,"<sup>1</sup> and he feels that it is "Beaumont's supreme contribution to the composer's revival."<sup>2</sup> Fittingly, Beaumont was also the contributor of the entry in the *New Grove Dictionary of Music and Musicians*. Most significant for performers, however, is the fact that he spent years sorting through the Zemlinsky collection at the Library of Congress, transcribing, editing, and sometimes even partially reconstructing numerous unpublished works by Zemlinsky in preparation for publication.

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<sup>1</sup> David Allenby, "Review: More Than a Footnote," *Musical Times* 141.1873 (2000): 59.

<sup>2</sup> Ibid.

I, too, wish to aid in the effort to shed light on the fascinating life and works of this half-forgotten composer. As the bulk of his compositions involve voice, the main purpose of this paper is to compare two of his lieder: “Ich geh’ des Nachts” op. 6, no. 4 (“I wander at night,” 1898) and “Vöglein Schwermut” op. 10, no. 3 (“The bird of melancholy,” ~1901). I have selected these two particular songs because of a specific similarity within their texts: they are the only poems set by Zemlinsky for voice and piano in which Death is not only personified, but is given a speaking role. As my close analyses reveal, the parallels between these two songs are not merely found in their textual content, but, more interestingly, manifest within the music itself. In giving Death distinct musical characteristics, Zemlinsky takes the opportunity to examine the nature of death and to explore its effect on our individual and collective lives.

### **Zemlinsky and his Lieder**

Alexander Zemlinsky (b. Vienna 1871, d. New York 1942) lived at a time of great musical experimentation and achievement in Europe and was not only a composer, but a celebrated conductor, composition teacher, and accomplished pianist as well. He obtained a diploma in piano at the Vienna Conservatory in 1890 and went on to complete a two-year course in composition, studying under Johann Nepomuk Fuchs. Zemlinsky interacted with many other musicians and composers whose music proved inspiring: for instance, one of his earliest supporters was Johannes Brahms, whose influence can be seen in Zemlinsky’s

early works. He also formed a lifelong friendship with Arnold Schoenberg, to whom he gave lessons in counterpoint, Schoenberg's only formal musical training. In fact, Zemlinsky and Schoenberg shared and commented on each others' compositions over the years, and later became brothers-in-law when Schoenberg married Zemlinsky's younger sister Mathilde. Although good friends with Schoenberg, Zemlinsky never wrote atonal or twelve-tone music; he preferred to stay within the realm of tonality, sometimes utilizing a high degree of chromaticism and later the kind of extended harmonies used by Wagner.

With a wealth of musical inspiration to draw on, Zemlinsky focused the bulk of his compositional efforts on writing for voice, for which he seems to have had a special affinity. As Lorraine Gorrell notes, literature was a constant and significant source of creative inspiration: "As the son of a writer, Zemlinsky developed a respect for words early in his career, and he gained practical experience in text setting with the libretto for his first opera, *Sarema*, probably under the guidance of his father, Adolf von Zemlinszky [*sic*]."<sup>3</sup> He is best known as an operatic composer; however, Zemlinsky's love of literature and his ability to create beautiful lyric melodies, combined with his superior pianistic skills, make lieder seem an ideal genre for him.

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<sup>3</sup> Lorraine Gorrell, *Discordant Melody: Alexander Zemlinsky, His Songs, and the Second Viennese School* (Westport, CT: Greenwood Press, 2002), 118.

Well over half of his published and unpublished works are for voice, which includes operas, choral works, works for voice and orchestra, and lieder. Fifty-four of his songs were published during his lifetime, and it was not until 1977-1978 that twenty more were published in the form of op. 22, op. 27, and two additional songs. In 1995 thirty-nine previously unpublished songs, mostly from the Zemlinsky collection at the Library of Congress, were published, having been transcribed, edited, and in some cases partially reconstructed by Antony Beaumont. Over half of Zemlinsky's lieder were composed between 1888 and 1901, including the two pieces analysed in this paper.

Lorraine Gorrell aptly describes the transforming compositional style that is particularly evident in Zemlinsky's lieder, attributing the constant change to his growth as a composer and his continuous exposure to new musical styles:

Many of Zemlinsky's earliest and last compositions were lieder, and they often reflected changes in his ideas about composition, illustrating the continual metamorphosis of his style. His conservatory education connected him with the masters of the past, and at first, his songs were carefully grounded in a traditional tonal language and style. As he developed independence, his harmonic vocabulary became more colourful, flexible, and unique with his increasing use of chromaticism, non-functional harmonies, pedal point, vaguely implied tonal centers, polytonality, and whole tone scales.

Zemlinsky's songs represent a bridge between the romanticism of the nineteenth century and the aggressive modern world – a synthesis of such disparate styles as those of Wolf, Mahler,



Strauss, Berg, and early Stravinsky. . . . Zemlinsky's musical language was never rigid or static, and he continued to change throughout his professional life in response to his musical experiences.<sup>4</sup>

While Gorrell seems to construe Zemlinsky's "continual metamorphosis" in relatively positive terms, Theodor Adorno presents a more mixed view of Zemlinsky's reliance on the influential works of his predecessors and contemporaries. In his 1959 essay, Adorno makes this observation:

[Zemlinsky]. . . is criticized for having internalized every possible fashion, particularly stylistic fashions, and combined them without ever achieving a tone that is peculiarly his own. . . . Alexander Zemlinsky, who originates from the same spiritual ambience as Mahler, made more of the compromises characteristic of the eclectic than any other composer of rank of his generation. The sensitivity essential to artistic production was identical in his case with impressionability. He positively invited the criticism of eclecticism. The subjects and forms that he chose uninhibitedly echoed those of his most celebrated contemporaries. . . . But his eclecticism shows genius in its truly seismographic sensitivity to the stimuli by which he allowed himself to be overwhelmed.

Weakness which never pretends to be creative acquires the strength of a second nature. The unreserved sacrifice of the pathos of personality

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<sup>4</sup> Ibid., 136-137.

becomes a critique of personality and hence something intensely personal.<sup>5</sup>

Although Adorno calls Zemlinsky's impressionability and eclecticism "weakness which never pretends to be creative," he also recognizes that, at the same time, these qualities reveal Zemlinsky's genius, strength, and personality. Despite the influence of other composers, or perhaps because of it, Zemlinsky was able to set to music the poetry of Dehmel, Maeterlinck, Baudelaire, Hofmannsthal, and over fifty others, skillfully transforming texts into deeply expressive vocal melodies with sparkling piano accompaniment.

### The Music and Texts of Opuses 6 and 10

Composed in 1898, *Walzergesänge* opus 6 consists of a series of six "waltzes," although they are clearly not simple dance tunes. Gorrell attributes the sophistication of the waltzes to "the shifting of rhythmic accents and reveling in unexpected harmonies,"<sup>6</sup> observing that "Klagen ist der Mond gekommen" (no. 2) and "Ich geh' des Nachts" (no. 4) are particularly "distanced. . . from the traditional, lighthearted Viennese waltz, as [Zemlinsky] reveals elusive layers of meaning in the intriguing texts."<sup>7</sup> Beaumont adds that these pieces, "written primarily to entertain, chal-

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<sup>5</sup> Theodor W. Adorno, "Zemlinsky," in *Quasi una Fantasia: Essays on Modern Music*, trans. Rodney Livingstone (London: Verso, 1992), 111, 114, 115.

<sup>6</sup> Gorrell, *Discordant Melody*, 166.

<sup>7</sup> Ibid.

lenging but not dauntingly difficult to perform, follow in the tradition of Brahms's *Liebeslieder* waltzes. . . . Only in 'Ich geh' des Nachts'. . . does the mood darken."<sup>8</sup> It is apparent that "Ich geh' des Nachts" owes its dark lyricism and deeply felt emotion to the composer's appreciation of and response to the song text, the music serving to intensify the poetry.

The texts for all six songs are anonymous Tuscan folk poems translated into German by the writer and cultural historian Ferdinand Gregorovius (1821-1891) in the collection for which he is most famous, *Wanderjahre in Italien* (The Wander Years in Italy, 1856-1877). "Ich geh' des Nachts" is originally a four-line poem:

Ich gehe des Nachts wie der Mond thut gehn  
 Ich suche wo den Geliebten sie haben.  
 Da hab' ich den Tod, den finstern gesehn,  
 Er sprach: Such' nicht, ich hab' ihn begraben.

[I walk at night, following the moon;  
 I search for where they have taken my sweetheart.  
 But then I saw death, the Dark One.  
 He said: "Search no longer – I have buried him."]<sup>9</sup>

Zemlinsky, however, takes a bit of liberty with the text by repeating the first two lines at the end, clearly

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<sup>8</sup> Antony Beaumont, *Zemlinsky* (London: Faber and Faber, 2000), 109-110.

<sup>9</sup> Emily Ezust, trans., "I walk at night," translation of "Ich geh' des Nachts" by Ferdinand Gregorovius, The Lied and Art Song Texts Page, REC Music, accessed December 5, 2009, [http://www.recmusic.org/lieder/get\\_text.html?TextId=6860](http://www.recmusic.org/lieder/get_text.html?TextId=6860).

turning the poem into a neat ABA form. The music, too, adopts a three-part form.

Although the exact dates are unknown, opus 10 was likely composed around 1901, only a few years after opus 6. Zemlinsky was passionately in love with Alma Schindler at this time, and chose themes of love, desire, marriage, and – in the case of no. 3 – melancholy for the six songs of opus 10. Unlike opus 6, each of the opus 10 texts were written by a different poet. “Vöglein Schwermut,” or “The bird of melancholy,” uses a text by Christian Morgenstern (1871-1914) which is once again relatively short in length:

Ein schwarzes Vöglein fliegt über die Welt,  
das singt so todestraurig. . . .  
Wer es hört, der hört nichts anderes mehr,  
wer es hört, der thut sich ein Leides an,  
der mag keine Sonne mehr schauen.

Allmitternacht, Allmitternacht  
ruht es sich aus auf dem Finger des Tods.  
Der streichelt's leis und spricht ihm zu:  
Flieg, mein Vögelein! flieg, mein Vögelein!  
Und wieder fliegt's flötend über die Welt.

[A little black bird flies over the world,  
it sings so sorrowfully of death. . . .  
Who hears it, he hears nothing else,  
who hears it, he does himself a harm,  
he no longer wishes to see the sun.

All midnight, all midnight  
it rests on the finger of death.  
He caresses it solemnly and urges it to:  
Fly, my little bird! fly, my little bird!

And again it flies fluting over the world.]<sup>10</sup>

Like “Ich geh’ des Nachts,” this song is the darkest of its set, since many of the others are not only joyful but reaffirm life and love within the central theme of the joy of partnership. As Beaumont notes, “in many respects op. 10 thus covers the same ground as the Walzer-Gesänge [*sic*] op. 6. But after the stylistic breakthrough of op. 7 Zemlinsky writes with greater freedom, expressive power and stylistic variety. As in the earlier cycle, one song disrupts the general euphoria: ‘Vöglein Schwermut.’”<sup>11</sup> It, too, is in a three-part form, specifically ABA<sup>1</sup> in which A<sup>1</sup> is quite truncated, and tells the story of a black bird whose sorrowful song is so powerful that those who hear it must die. Every night at midnight, the bird comes to rest on the fingers of Death before taking off again to find new victims. Gorrell briefly compares the bird in Morgenstern’s poem to the legend of the Lorelei<sup>12</sup> whose singing, like that of the Greek sirens, is so potent that it lures men to their deaths.

As I go into more detailed analyses, it can be seen that the personification of Death as well as Death’s speech

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<sup>10</sup> My own translation, with the aid of Dr. Harald Krebs and with reference to John Campbell’s translation. John H. Campbell, trans., “Melancholy bird,” translation of “Vöglein Schwermut” by Christian Morgenstern, *The Lied and Art Song Texts Page*, REC Music, accessed December 5, 2009, [http://www.recmusic.org/lieder/get\\_text.html?TextId=11602](http://www.recmusic.org/lieder/get_text.html?TextId=11602).

<sup>11</sup> Beaumont, *Zemlinsky*, 116.

<sup>12</sup> Gorrell, *Discordant Melody*, 180.

occur in the B section of both lieder and are treated in a comparable manner. The subject matter of the texts invites questions and speculations about Zemlinsky's fascination with the melancholy in literature, perhaps allowing tenuous parallels to be drawn between his compositions and the disappointments he suffered in his personal and professional life. At the same time, the strong similarities between these two lieder suggest that Zemlinsky may have felt compelled to return to and develop the ideas of op. 6, no. 4 when he wrote op. 10, no. 3. Because of the uniqueness of the textual content, one wonders whether he deliberately sought out a poem that would allow him to rework the compositional ideas of his previous song.

### **Analysis of "Ich geh' des Nachts"**

The majority of Zemlinsky's lieder are relatively short and do not include extensive piano preludes or postludes; that is not to say, however, that the brief piano introductions of "Ich geh' des Nachts" and "Vöglein Schermer" do not play fundamental roles in setting the mood and even revealing the formal structure of the pieces. In the first two measures of "Ich geh' des Nachts" the atmosphere is established by the pervasive "wandering motive" that will last through the entire piece, a motive suggestive of the speaker wandering through the night, searching for the beloved (see Example 1).

The great passion, movement, and expression desired by Zemlinsky are stated in the tempo and expression markings: "Leidenschaftlich bewegt" and "Agitato, con passion" are written at the beginning of the piece

and “mit grossem Ausdruck” and “con espressione” appear at the entry of the voice.<sup>13</sup> Besides these markings, a number of factors presented in the opening measure contribute to the unsettled, restless mood of the piece. There are the constant triplets in the right hand of the piano set against a brief three-against-two rhythm in beat three, as well as what might be referred to as small-scale or low-level metrical dissonance: the triplet pattern consists of *pairs* of falling pitches rather than groups of three, making the continuous motion sound slightly off-kilter. In addition, the left hand rhythm lingers on beat two before propelling itself into the downbeat of the following measure while hairpin dynamics give a sense of undulation; both rhythm and dynamics here contribute to the constant movement. The many dissonant intervals buried within the right hand also contribute to the unsettled mood: a minor second (A-G#), an augmented second (G#-F), a tritone (D-G#), and an

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<sup>13</sup> It seems more likely that the decision to reiterate directives in both German and Italian was made by an editor rather than Zemlinsky. The Texas-based Recital Publications' 1992 reprint editions of opuses 2, 5, 7, 8, 10, and 13 use source material provided by the Gorno Memorial Music Library of the Cincinnati Conservatory of Music and do not reiterate markings. Opus 6, however, was published a year later by Recital Publications with source material from the Spaulding Library of the New England Conservatory. The edition does not specify that it is a *reprint* edition as the others do, which would suggest little to no editorial changes, and the reiteration of directives in German and Italian seems to be relatively consistent throughout the opus 6 pieces. This opus was originally published by Simrock in 1899 and opus 10 by Doblinger around 1901. I currently do not have access to these initial publications for comparison.

augmented sixth (G#-Bb). It is the repetition of this single-measure “wandering motive” that suggests cyclical motion, as well as the fact the motive begins on the tonic, departs from it, then returns to it. This cyclicity is reflected on a larger scale with the return of the opening lines of text and the tonic tonality at the end of the piece.



**Example 1.** “Ich geh’ des Nachts” mm.1-3, section A. “Wandering motive” in m.1; dissonant appoggiatura in m.3 voice.

When the haunting vocal line begins, it very quickly uses leaps to expand over one and a half octaves, reflecting the speaker’s inner turmoil. Word-painting occurs at “Mond” (“moon”), which is set as the highest pitch in the phrase (see Example 4 for the repeat in section A<sup>1</sup>). This vocal line heavily relies on appoggiaturas to contribute to the troubled feeling of the piece, and the dissonant crunch of several downbeats is further emphasized by duration: the C# over a D minor chord in m.3 lasts for a beat and a half (see Example 1), and the G# over a D minor chord in m.4 lasts for two beats before finally resolving on a weak beat.

Gorrell notes that the D minor chord with an added G# occurs prominently in Zemlinsky’s other music and was used by Schoenberg in *Pelleas und Melisande* (1907), a symphonic poem about forbidden and



doomed love, to represent fate.<sup>14</sup> Although this chord appears in Zemlinsky's music prior to the completion of Schoenberg's orchestral work, it seems that the connection to fate has encouraged Zemlinsky scholars to refer to this as the "fate chord." As Beaumont notes, the D minor chord with an added G# became "Zemlinsky's identifying harmonic fingerprint."<sup>15</sup> Perhaps this particular harmony in "Ich geh' des Nachts" is used to foreshadow Death's statement concerning the fate of the beloved, or to suggest that the speaker is fated to forever search in vain. It seems fitting that the G# of the "fate chord" occurs in the voice with the words "Nachts" ("at night") and "Tod" ("death"), since these often connote dark, ominous forces. This harmony is also found within the "wandering motive" stated in the opening. In addition, the key of D minor was a favourite of Zemlinsky as well as Schoenberg while he wrote tonal music, and was apparently the key Zemlinsky associated with tragedy.<sup>16</sup>

The middle section begins at the pickup to m.13 and sets the third and fourth lines of text. Although I refer to it as the B section, it opens with A material that lasts until the metrical dissonance in the right hand of the piano at mm.15-16, which immediately precedes new material in which Death speaks. In direct contrast to the disjunct but lyrical expansiveness of the

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<sup>14</sup> Gorrell, *Discordant Melody*, 167.

<sup>15</sup> Beaumont, *Zemlinsky*, 22.

<sup>16</sup> Ibid.

previous vocal material, Death's spoken words are approached by a leap of a major sixth down to a low Db and he "speaks" without inflection, repeating the same pitch primarily with quarter notes (see Example 2). Not only does he "speak" in a monotone, but with a mono-rhythm as well. This gives Death a very different feel from the speaker's emotions: Death seems cold and indifferent, matter-of-fact, and even ominous; there is also a sense of finality in the strong pulse of the quarter notes. It makes sense that Death would speak on a low pitch, but it is interesting that Zemlinsky chose not only a flat pitch, but the flat of the tonic pitch – this perhaps lends an additional sense of darkness, at least visually. It is also interesting to note that the Db, now a prominent pitch and an integral part of the Gb harmony in this section, is an enharmonic re-spelling of C#, a pitch that has occurred only twice in the vocal line thus far (mm.3, 13) as a dissonant non-chord note. In fact, when C# does appear as a leading-tone within a dominant chord, it usually evades the expected tonic resolution by stepping down to C as part of the descending line C-B-A over a tonic chord. This use of scale degree b7 not only hints at the Dorian mode mentioned by both Beaumont and Gorell,<sup>17</sup> but also allows Zemlinsky to avoid the true sense of closure or resolution afforded by a clear leading-tone to tonic motion.

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<sup>17</sup> Beaumont, *Zemlinsky*, 110. Gorell, *Discordant Melody*, 167.



**Example 2.** "Ich geh' des Nachts" mm.16-19, section B.

Death's speech approached by leap down to low Db; harmonic rhythm comes to a standstill. Example also contains second half of mm.15-16 hemiola in piano.

Even though the wandering motion in the right hand of the piano remains a constant, time seems to slow at the moment Death speaks (m.17); this seems fitting, since Death exists outside the constraints of time. As if to herald the arrival of Death, the two measures that precede his speech are the most metrically dissonant of the piece: the previous small-scale metrical dissonance consisting of pairs of falling triplet eighth notes remains, while a two-beat falling pattern is repeated for a total of three iterations over the two measures, effectively creating a hemiola. The hemiola is further identified with slurs. When Death begins to speak, however, the "wandering motion" is no longer metrically dissonant: the hemiola disappears and, rather than being grouped in pairs of notes, the triplets are grouped into threes. For the first time, solid chords are used in the left hand and the lower register is highlighted by the use of doubling to produce octaves. The notion that time slows or stops is primarily suggested by the harmony, however: the *only* change in pitch that occurs is an oscillation between a half note Gb and a quarter note F in the piano, prolonging a single harmony over several measures via its neighbour. Despite the consistency of the continuous sur-

face rhythm, it is as if Zemlinsky briefly freezes the moment of Death's speech.

Gorrell points out that Zemlinsky's setting of Death's speech follows in the tradition of Franz Schubert's lied "Der Tod und das Mädchen" ("Death and the Maiden"),<sup>18</sup> which later became the basis for the second movement theme and variations of Schubert's 1824 string quartet of the same name. Composed in February of 1817, this one-page song sets two quatrains by German poet Matthias Claudius (1740-1815) consisting entirely of a dialogue between the characters "Das Mädchen" and "Der Tod." Like the A section of "Ich geh' des Nachts," the maiden's speech is more lyrical than Death's, and the accompaniment features more motion. When Death speaks (see Example 3), he sings on an unvarying D, while the accompaniment is also significantly more static.



**Example 3.** Schubert's "Der Tod und das Mädchen" mm.16-24. The end of the Maiden's dialogue and the beginning of Death's dialogue.

The similarities between these two songs are unmistakable, including their shared D minor tonality. In fact, it would not be unreasonable to suggest that

<sup>18</sup> Ibid., 168.

Zemlinsky himself may have performed this particular Schubert lied at some point during his career as an accomplished accompanist. It is well known that he had a great knowledge of the traditional lieder repertoire, and he accompanied and toured with singers such as the Hungarian-born baritone Max Klein, performing some works by Schubert including *Schwanengesang* on 8 April 1920 and *Die Winterreise* on 20 November 1921 in Prague. He sometimes performed his own works as well: opus 6 was premiered by Zemlinsky and the soprano Melanie Guttman on 28 December 1899 in Vienna.

What especially interests me about "Ich geh' des Nachts" is that Zemlinsky chose to return to the first two lines of text, revealing that there is no verbal acknowledgment of Death's words; the speaker disregards Death's advice. This suggests that the speaker will continue to search for the beloved, perhaps even to the point of obsession. The ending remains restless and reflects the unfinished or open-ended nature of the narrative through several means: the repetition of melodic and rhythmic figures, the constant motion, the lack of cadence in favour of prolongation of tonic harmony, and the voice closing on scale degree 5 instead of 1. The cyclical or continuous nature of the textual content, hinted at musically in the insistent "wandering motive" introduced at the start of the piece, is further emphasized through the repetition of a falling C-B-A melodic fragment in both the voice and piano during the final system.

Although there is no verbal acknowledgment, perhaps the response to Death is found in the piano part. As

the return of the A section approaches, there is an outpouring of emotion beginning in the piano with a large crescendo (m.22) to a forte (m.24), the first indication of a dynamic above the song's overall pianissimo/piano level. The drama of the voice's re-entry is reinforced by an almost violent rising septuplet arpeggiation on the pick-up to m.25 followed by a falling countermelody in octaves in the right hand of the piano (see Example 4). The combination of arpeggiation and countermelody mimics the melodic contour of the voice, although it truncates the duration of the rise and elongates the fall of the vocal line. This countermelody relies on groupings of three step-wise descending pitches, an element that can actually be traced throughout piece.



**Example 4.** “Ich geh’ des Nachts” mm. 24-27, section A<sup>1</sup>. Dramatic return to opening material; countermelody in descending piano octaves. Example also contains word-painting on “Mond” previously found in section A.

The first occurrence of a set of three descending pitches can be found in the upper notes of the m.1 “wandering motive” (A-G#-F, see Example 1); this is actually an inversion of the voice’s C#-D-F in m.3 and also a retrograde fragment of the vocal line in

mm.3-4. This compositional element is further highlighted in mm.9-10 in an inner voice of the piano, clearly marked with stems and slurs so that it is brought out of the texture by the performer. Like the concept of the developing variation, the three-note patterns often develop out of previously stated material: for instance, the gap of a falling minor third (first seen in the left hand of the piano at m.1) is filled in to create another three-note falling pattern beginning in m.13, and yet another three-note pattern grows out of the Gb-F oscillation to completely take over the left hand in octaves beginning at m.20. As previously mentioned, the countermelody at m.25 is based on three falling pitches, while the final system features the repetition of C-B-A in both the voice and the piano. This repetition of C-B-A within the prolonged tonic harmony contrasts the end of the initial A section, where the voice sings C-B-A followed by C-Bb-G in order to cadence in G minor instead of the tonic. The repetition of the same three falling pitches at the close of the piece suggests a kind of circularity, implying that the speaker will continue to search for the beloved despite Death's command. Perhaps the new material in the piano in A<sup>1</sup> is not the only response to Death's words that is given. Even though the speaker cannot or will not admit the truth of Death's statement aloud, the potency of his speech takes on greater meaning through the repetition of C-B-A in the final system as the speaker becomes fixated on the three-note fragment and on continuing the search.

### Analysis of “Vöglein Schwermut”

Besides the personification of Death and the setting of Death’s speech, “Ich geh’ des Nachts” and “Vöglein Schwermut” have several other elements in common, including the extensive use of an initial motive, the 3/4 meter, and the ternary form in which Death speaks in the B section. Although “Vöglein Schwermut” was published in the key of Eb minor, it was originally conceived in the same key as “Ich geh’ des Nachts”: Gorrell mentions that, among the collection of Zemlinsky’s papers and manuscripts at the Library of Congress, there is a holograph of the vocal part of op. 10, no. 3 written in the bass clef in D minor.<sup>19</sup>

The first measure of “Vöglein Schwermut” plays an important role in setting the mood, suggesting the narrative, and predicting the form of the piece to an even greater extent than the opening of “Ich geh’ des Nachts.” It consists of what seems to be an arpeggiated German sixth chord followed by a diminished seventh chord over the Eb tonic in the bass, although Beaumont recognizes the sonority’s resemblance to the “fate chord” and compares the piano’s ‘nervous fluttering’ to Schumann’s *Vogel als Prophet*.<sup>20</sup> What is most interesting, however, is that each beat of this measure can be likened to a microcosmic formal section of the piece’s ternary structure. The A section can be represented by beat 1, in which the fast thirty-

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<sup>19</sup> Gorrell, *Discordant Melody*, 181.

<sup>20</sup> Beaumont, *Zemlinsky*, 116.



second notes are indicative of the black bird in the text. The bird flies down and lands on the fingers of Death in the B section, which is reflected by the falling motion toward the single Bb quarter note of beat 2 where, as in the previous song, time seems to slow or stop. Beat 3, with its upward swell of sixty-fourth notes, mirrors the return of the A section and the bird taking off in flight once again. Within a single measure, therefore, the motion of a bird alighting and flying away is present (see Example 5).



**Example 5:** “Vöglein Schwermut” m.1, section A. Opening measure both programmatic and a microcosm of song’s ternary structure.

The piano part in this piece is more obviously programmatic than that of “Ich geh’ des Nachts.” Besides the constant fluttering of thirty-second and sixty-fourth notes, the bird is also represented musically by the right hand trills in mm.8-9. When the voice enters, it oscillates between A and Bb and, although the vocal line is much slower and seems to float above the piano, it, too, has birdlike qualities: combined with the rhythm of dotted quarter, eighth, and quarter note, the decoration of the established oscillation at the word “Vögelein” (“bird,” m.4) that leaps up a perfect fourth and back down a tritone is reminiscent of a birdcall. A more subtle occurrence of word-painting

can be found in m.6 where, similar to the setting of “Mond” in the previous piece, the word “Welt” (“world”) is set as the lowest note of the opening phrase.

Like “Ich geh’ des Nachts,” the dynamic level of “Vöglein Schwermut” is primarily very soft, marked *pianissimo* in m.1 and triple piano at m.24 to the end of the piece. Only at one point do the dynamics make a sudden dramatic shift. While the climax of op. 6, no. 4 occurs with the return of A<sup>1</sup>, the climax of op. 10, no. 3 occurs at the end of the first A section, quickly crescendoing in m.14 to a *forte* before climbing to a *fortissimo* at m.18. This increase in dynamics occurs with the text “der thut sich ein Leides an, / der mag keine Sonne mehr schauen” (“he does himself a harm, / he no longer wishes to see the sun”), the *fortissimo* arriving immediately after the sun is mentioned, as if light is breaking out from behind clouds. This swell in dynamics simultaneously occurs with a shift from the minor tonality to a Gb major sonority, strengthening the suggestion of word-painting at the mention of the sun. The climax may well allude to the sunlight in the text, but the light is then rejected as the brief glimpse of major harmony darkens and dissolves in mm.17-19, the fluttering notes of the piano descending as the bird comes down to rest on Death’s fingers for the B section (see Example 6). The juxtaposition of major and minor sonorities seems to highlight the contrast between the sun, which is associated with light and life, and Death, whose association with darkness is confirmed with text “Allmitternacht” (“all midnight,” mm.24-25). The setting of “Allmitternacht” as a rising perfect fifth and the word’s repeti-

tion is perhaps reminiscent of a clock beginning to chime the hour of the night.

To an even greater extent than the previous piece, time seems to stop at the advent of the B section at m.20: not only do the fast, birdlike surface rhythms completely cease, but durations get longer and the first measure of this new section is marked by a fermata (see Example 6). The extreme low register of the left hand octaves not only directly contrasts the previous more middle-range material, but also seems to suggest an ominous darkness, heralding the arrival of Death in the text. Maintaining the left hand rhythm of a half note followed by a quarter note, the B section also features the brief oscillation of pitches in the piano, similar to the B section in the first song. The oscillation occurs at first in the left hand of the piano and changes at significant points in the text: it changes to a quarter-note/half-note rhythm when it moves to an inner voice at the introduction of "Tod" ("Death," m.29), and returns to the original half-note/quarter-note rhythm in full chords when Death speaks (mm.33-34). The latter was also the oscillation rhythm used in "Ich geh' des Nachts."

The image displays two systems of a musical score for the song "Vöglein Schwermut". The first system features a vocal line and a piano accompaniment. The vocal line has the lyrics "Son - ne mehr schau - en." with the English translation "light of the sun - shine." below it. The piano accompaniment is marked *ff* and consists of a fast, fluttering triplet pattern in the right hand and a more rhythmic pattern in the left hand. The second system shows the vocal line with the lyrics "Allmit - ternacht, Allmit - ternacht ruht es sich" and the English translation "At mid-night hour, at mid-night hour, it rests a -". The piano accompaniment is marked *ppp* and features a slow, sustained chordal texture in the right hand and a simple rhythmic pattern in the left hand. The tempo and dynamics change significantly between the two systems.

**Example 6:** “Vöglein Schwermut” mm.17-26, end of section A and beginning of section B. Climactic point where the “Sonne” is rejected (Gb major harmony occurs in m.16 immediately preceding this example); word-painting of bird alighting; contrast between formal sections.

As in the previous song, the vocal line can be quite disjunct and expansive, such as the anguished setting of the line “das singt so todestraurig” (“singing so sorrowfully of death,” mm.7-10). Zemlinsky treats Death’s spoken lines in a similar manner as well, making them much less lyrical and more speech-like. As in “Ich geh’ des Nachts,” there is a leap down into the lower register from Eb to Eb (mm.33) and Death speaks on a single pitch using repeated note durations; once again, Death uses a monotone and a mono-rhythm. The process is repeated in the next measure when Death reiterates his directive for the bird to fly away (see Example 7).

The A<sup>I</sup> section begins at m.36 with the flight of the bird, thus the piano’s return to the fast, fluttering thir-

ty-second and sixty-fourth notes (see Example 7). The image of the bird commencing flight is strengthened by the continuously rising arpeggiated chords in m.41 followed by the final rising sixty-fourth notes in the penultimate measure. This overall rising motion at the end of A<sup>I</sup> is in direct contrast to the falling motion at the close of A, in which the bird descends from the sky and comes to rest on the fingers of Death.



**Example 7:** "Vöglein Schwermut" mm.33-36, end of section B and beginning of section A<sup>I</sup>. Death's speech again includes a leap down to a low repeated pitch; slow surface rhythm in piano contrasts re-entry of A material, which mimics the bird taking flight.

As in op. 6, no. 4, there is a sense of the cyclical built into the piece. Just as the speaker in the previous song will presumably continue to search for the beloved despite Death's advice, the black bird, a manifestation or at least a symbol of death, will continue to fly singing over the earth and come to rest on Death's fingers each night. This cyclical nature is found in the ternary form of the piece as well as the textual content, and is foreshadowed from the very start with the repetition of the falling and rising "bird motive," much like the "wandering motive" of "Ich geh' des Nachts." Perhaps this points to the cyclical nature of life and death, or to the timelessness of death.

## Conclusion

As Gorrell has stated, Zemlinsky's lieder bridge "the romanticism of the nineteenth century and the aggressive modern world,"<sup>21</sup> and the two songs analyzed in this paper particularly seem to point toward the expressionism that originated in early twentieth-century Germany. In the chapter "How the Humanities Speak about Death" from her book *Death and the Humanities*, Sharon Scholl states that the "primary inflection cues" in expressionistic music and painting are "erratic lines, a dissonance of color, and unpredictable patterns across the surface."<sup>22</sup> Although one might argue that Zemlinsky makes use of such 'cues' throughout "Ich geh' des Nachts" and "Vöglein Schwermut" in order that "the emotional element emerges as dominant over the subject matter,"<sup>23</sup> at the same time the subject matter – death – is granted a very real and pervasive presence. These two lieder not only explore "the meaning of death in human existence and the effect exerted upon our personal and collective lives by consciousness of death,"<sup>24</sup> as Scholl might suggest, but they also assign death a personified, speaking role. While the darkness, sorrow, and solemnity mentioned in the poems are also exemplified in the music, what is particularly conveyed through Zemlinsky's settings

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<sup>21</sup> Gorrell, *Discordant Melody*, 137.

<sup>22</sup> Sharon Scholl, *Death and the Humanities* (Lewisburg: Bucknell University Press, 1984), 25.

<sup>23</sup> Ibid.

<sup>24</sup> Ibid., 13.

of Death's speeches is the inevitability and eternality of death: this notion is supported by the repetition inherent in the monotone and mono-rhythm of the speeches, the extensive use of repeated motives, and the utilization of both cyclicity and the so-called "fate chord."

Perhaps inspired by Schubert's treatment of the characters in "Der Tod und das Mädchen," Zemlinsky used the medium of music to express the nature of Death in two of his earlier lieder. Despite his relative anonymity according to today's musicians and audiences, Zemlinsky had an immense talent for text setting. As the son of a writer and as a lover of literature, he was continuously inspired by the written word, as his numerous compositions for the voice attest. Gorrell also makes note of Zemlinsky's particular affinity for poetry:

Zemlinsky found in poetry a source of personal expression around which he could shape his musical vision, magically linking musical inspiration and technique in the interpretation of the poem. His willingness to allow words to influence the shape of his musical ideas places him squarely within the German lied tradition. The listener can sense Zemlinsky's affinity with the poet when words stimulated his musical imagination and reveal glimpses of his own intimate thoughts and sensibilities.<sup>25</sup>

Judging by the depth and richness of possible analysis, "Ich geh' des Nachts" and "Vöglein Schwermut"

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<sup>25</sup> Gorrell, *Discordant Melody*, 134.

were poems that filled Zemlinsky with creative possibility and pushed him toward his ‘magical’ musical visions. I agree with performer and lecturer Jane Manning, that “Zemlinsky and his contemporaries would find a regular place in recital programmes if they were more widely known and, especially, promoted more effectively.”<sup>26</sup> I for one am grateful to have had the opportunity to study two of Zemlinsky’s works in depth, since they have proved to be not only wonderfully expressive but also analytically intriguing.

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*To discover a bountiful supply of relatively unfamiliar lieder is a special delight. It oxygenates some of the more faded corners of the genre, affording a prime opportunity for a fresh approach from a modern perspective, unhindered by the weight of tradition and habit. Those who guide young singers must always be willing to encourage them to seek out new pieces. It is all too easy to revolve on the spot, coaching only those works one knows intimately already, without troubling to entertain any new thoughts on them. . . . All singers and teachers should welcome the works of Zemlinsky and his contemporaries.*<sup>27</sup>

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<sup>26</sup> Jane Manning, “Appendix: Lecture-Recital: Zemlinsky and the Forgotten Late Romantic Composers of Lieder,” in *Zemlinsky Studies*, ed. Michael Frith (London: Middlesex University Press, 2007), 123.

<sup>27</sup> *Ibid.*, 124.



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**Abstract**

Alexander Zemlinsky, a fin-de-siècle Viennese composer associated with Brahms, Mahler, and Schoenberg, has been historically overshadowed by such celebrated composers. The near lack of popular and critical attention is unwarranted, however, particularly in light of his immense talent for text setting as evidenced in his lieder and operas. This paper seeks to address this musicological gap and continue the work of Zemlinsky scholars like Antony Beaumont and Lorraine Gorrell by offering a close comparative analysis of two of Zemlinsky's early songs, "Ich geh' des Nachts" op. 6, no. 4 and "Vöglein Schwermut" op. 10, no. 3. These two lieder have been selected because of a specific textual similarity which has resulted in corresponding parallels within their musical settings: interestingly, these songs contain the only poems in Zemlinsky's oeuvre in which Death is personified and given a speaking role. Ultimately, this paper argues that, through the unique musical characteristics given to Death in response to the poetry, Zemlinsky not only demonstrates a remarkable ability to express text through the medium of music, but he also comments on the inevitability and eternity of death and its effect on humanity.



# Aesthetic Appropriation of Electronic Sound Transformations in Ligeti's *Atmosphères*

Sarah Davachi

## Introduction: Concerns and Methodology

György Ligeti's 1961 orchestral work, *Atmosphères*, is often viewed as the piece in which his mature style based on the concept of micropolyphony was fully developed. Although the 1960 precursor, *Apparitions*, employs micropolyphony in certain sections of the piece, the technique is maintained and unified throughout the entirety of *Atmosphères*. Micropolyphony is a concept particular to Ligeti's own understanding of the aesthetic of sound-mass composition. Like many other contemporaneous sound-mass compositions, such as those by Penderecki, Kagel, Varèse and, to some extent, Xenakis, micropolyphony is founded upon a disposition toward the emancipation of surface texture, the creation of dense sonorities through chord clusters and the suspension of traditional structures of musical time, form, and pitch relation. However, micropolyphony extends the sound-mass aesthetic further, suggesting the presence of active underlying contrapuntal layers that are revealed over time by way of the comparatively static macro-structure. To this end, the macro-structure is immediately perceptible while the micro-polyphonies take on a more illusory nature; they are not intentionally conceived compositional elements and therefore their perceptibility is contingent upon the aural cognizance of the listener. The way in which musical perception is made functional is a concern that often arises in Ligeti's

concept of micropolyphony and will require continued reference throughout this analysis.

Ligeti spent his early life in communist Hungary. One major development that helped distinguish his early and later styles was his emigration to the West – first to Vienna in December of 1956, then to Cologne in February of 1957 where he began working at the studios of the *Nordwestdeutscher Rundfunk* (NWDR).<sup>1</sup> The technical and aesthetic foundations of Ligeti's concept of micropolyphony can be credited to developments that occurred both prior to his emigration and during his time in Cologne. First among these was his exposure to the early avant-garde environment developing in Western Europe, which he was able to experience while still in Hungary. Albeit indirect and through primarily self-taught methods, Ligeti developed a general understanding of early twelve-tone technique, allowing him to begin experiments in serialist composition. This period was also one of great intellectual and aesthetic growth for Ligeti; via occasional radio broadcasts he was able to hear several of Stockhausen's early works and, through friends and his time at the Franz Liszt Academy in Budapest, he was able to access a limited amount of modernist literature, such as Theodor Adorno's *Philosophie der Neuen Musik* (*Philosophy of New Music*). Following this, Ligeti undertook a significant re-evaluation of his early compositional style; it is in this period that he began to develop the attitude, concepts and terminology that would later inform a fully integrated ap-

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<sup>1</sup> It should be noted that both 'NWDR' (*Nordwestdeutscher Rundfunk*) and 'WDR' (*Westdeutscher Rundfunk*) are used interchangeably in the literature to refer to the Cologne studio. 'NWDR' is the abbreviation that will be used throughout the remainder of this analysis.

proach of micropolyphony. In particular, Ligeti explored new ideas of musical space, tone colour, and polyphonic montage; the results of these experiments can be seen in several of the works he composed between 1953 and 1955.<sup>2</sup>

Another development in Ligeti's concept of micropolyphony, and perhaps the one of greatest importance, occurred during his three years of experimentation (1957-1960) with electronic composition at the studios of the NWDR in Cologne. Ligeti worked closely with several composers at the studio, namely Michael Koenig and Karlheinz Stockhausen, and became familiar with their compositional approaches. During this time he produced three electronic compositions (though one remained incomplete) before abandoning the medium altogether in 1960 in favour of a return to instrumental composition.

This analysis will begin by briefly outlining Ligeti's instrumental compositional theory and technique between 1955 and 1957, focusing specifically on the terms and concepts that were later incorporated into his idea of micropolyphony: expansion of tone colour, development of montage and canonical structures to create texture and dimension, the juxtaposition of formal dialectics such as stasis and motion or continual and discrete movement, and the perceptible transformation of sound in musical space. Many of these ideas are theorized in Ligeti's "Wandlungen der musikalischen

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<sup>2</sup> Such as *Musica ricercata* (1953), *Métamorphoses nocturnes* (1953-54) and *Éjszaka, Reggel* (1955). These works are discussed on pages 6-13.

Form”.<sup>3</sup> This text will serve as the primary source through which these concepts will be interpreted. As recent research shows, a significant amount of the theoretical concepts Ligeti adheres to in formulating his concept of micropolyphony had already reached a stage of significant development prior to his emigration to the West.<sup>4</sup>

Despite this, however, there are notably distinct characteristics between Ligeti’s pre-emigration experiments, in what could be referred to as the “montage” technique, and his fully formed works employing micropolyphony, the latter of which reflect a distinct appropriation of the sounds he heard in electronic music composition and an overt affection for density. The main portion of this analysis therefore examines the space in between - this being his time in Cologne - in order to determine the ways and the extent to which Ligeti’s experience with electronic composition further shaped his theories. A comparative analysis of Ligeti’s *Pièce Électronique No. 3* with *Atmosphères* emphasizes the particular similarity of technical considerations with respect to the transformation of sound. This comparison illustrates the way in which a deliberate appropriation of technique resulted in a strong aesthetic correlation between the two works. Moreover, Ligeti’s reasons for abandoning the electronic medium, which relate to difficulties with perception and transformation, are also of particular inter-

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<sup>3</sup> György Ligeti, “Metamorphoses of Musical Form,” trans. Cornelius Cardew, *Die Reihe* 7 (1960).

<sup>4</sup> Primarily: Friedemann A. Sallis, “An Introduction to the Early Works of György Ligeti,” (PhD diss., Technische Universität Berlin, 1992); Marina Lobanova, *György Ligeti: Style, Ideas, Poetics* (Berlin: Verlag Ernst Kuhn, 2002).



est. Although Ligeti eventually abandoned the electronic medium, he gained from it a broadened understanding of density and a heightened appreciation for a distinctly electronic methodology of sound transformation; both of which were directly appropriated into his concept of micropolyphony.

### **Ligeti's Pre-emigration Period (1953-1958): Terms and Concepts**

Between 1953 and 1957, Ligeti's early compositional style went through several significant modifications, resulting in the culmination of a renewed overall aesthetic disposition in 1958. It is worth examining a few of the pertinent changes that took place in order to gain an understanding of the creative and intellectual concerns Ligeti brought with him to Cologne. Many of the compositions written prior to 1958 explored the serialist technique, which he had recently learned independently. Moreover, like many composers of the immediate post-war era, Ligeti took initial interest in Webern's pointillist approach to serialism and his extension into an expanded chromatic language. Despite the cultural isolation in Hungary between 1948 and 1956, a limited amount of materials from the West, such as journals and scores, were available to Ligeti through his connection to organizations such as the Franz Liszt Academy and the Association of Hungarian Musicians. In addition to Webern and the composers of the Second Viennese School, Ligeti also took particular interest in Bartók's integration of expanded scales, including chromatic and octatonic sets, as well as his treatment of musical time, including changing meters and asymmetrical rhythms. In *Musica ricercata* (1953), Ligeti explored

a continually expanding chromaticism that increases by one pitch throughout each subsequent movement; the first movement employs a pitch-class set of only 2 pitches while the final movement contains all 12 pitches. The initial stages of Ligeti's compositional style at this time concerned the treatment of pitch-class sets as "units" of sound, the integration of expanded pitch relations, and a loosening of musical time through metric and rhythmic alteration.

Through occasional local broadcasts of West German radio programs, Ligeti was also able to experience a moderate amount of electronic music beginning as early as 1953. In 1956, Ligeti received his first exposure to Stockhausen's *Gesang der Jünglinge* via radio broadcast; this event is often interpreted as a factor contributing to his decision to become involved with the compositional circles of Darmstadt and Cologne. With regard to theoretical and intellectual works, two musical sources seem to have provoked particular interest in Ligeti; namely, Schoenberg's writings on musical thought and his concept of *Klangfarbe*, which theorizes a broadened treatment of pitch as tone colour, and Adorno's writings on a philosophy of modern music, in which he asserts a more pluralistic approach to composition. Notions of plurality and integration are featured quite prominently in Ligeti's aesthetic. Albeit a marginal effect, the totalitarian nature of the Hungarian communist regime during the 1950s also seems to have induced a skeptical reaction toward collective and absolutist approaches. Despite his interest in the activities of the composers at Cologne, it is important to note that Ligeti viewed the confident exhibitions of total serialism with uncertainty and, as a result, internally resolved to explore an alternative route.

In addition to his practical experiments in serialism, Ligeti also theorized a good deal of his compositional sentiments in written works, again composed both before and after his emigration to the West. Among these are two critiques on the serialist works of Pierre Boulez, which were published by Herbert Eimert, the co-director of the Cologne studio and founder of its periodical on avant-garde and electronic music, *Die Reihe*.<sup>5</sup> Although Ligeti was still employing the twelve-tone technique both before and after he emigrated, his writing expresses a strong opposition to what he recognizes as a stasis of form embedded in the theory. He cites a lack of timbral and gestural control that results despite the apparent stability of the procedure. In addition to his writings on serialism, Ligeti also expresses a similar dissatisfaction with the tenants of aleatory. Unlike his critique of serialism however, Ligeti's primary concern with aleatoric procedures was unrelated to a lack of compositional control. Rather, Ligeti notes difficulty with the perception of the aleatoric process; that is, the chance-controlled nature of an aleatoric composition is not typically perceptible to the listener.<sup>6</sup> Such views reflect a preoccupation with musical perception and the notion that perception of musical space, form and shape must occur with a sense of immediacy and not "after-the-fact".

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<sup>5</sup> "Pierre Boulez" and "Some Remarks on Boulez's 3rd Piano Sonata".

<sup>6</sup> Unless, perhaps, the listener were to experience two performances of the same work or receive information regarding the composer's intentions, as would be documented in a score.

Ligeti's personal expression of a new musical style culminated most prominently in "Wandlungen der musikalischen Form", which was begun in 1956 and later published in 1958. In this essay, Ligeti outlines a large portion of his terminology and formats several overarching concepts inherent in his concept of micropolyphony: the emergence of new conceptions of musical form, transformation of sound over time, contrast of dialectic and textural characteristics, juxtaposition of continual and discrete structures, stasis and motion, use of canon to create multi-dimensional sound, integration in musical space, and neutralization of rhythm are described. He begins by suggesting that a coherent understanding of form is not achieved by quantifying parameters such as pitch, rhythm and duration into pre-determined serialist arrangements. Instead, he suggests that the approach to musical form should be expanded to emphasize more global concerns related to surface structure, movement of sound, and distribution of density across register. The latter notion represents a shift from the horizontal layering of sound, as is practiced in serialism, to a vertical organization of texture.<sup>7</sup> In reference to layering, Ligeti describes a methodology based on permeability; he suggests, "[permeability] means that structures of different textures can run concurrently, penetrate each other and even merge into one another completely, whereby the horizontal and vertical density-relationships are altered."<sup>8</sup> In this, Ligeti is alluding to a superimposition of texture and tone colour, as well as a fluid transfor-

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<sup>7</sup> Ligeti, "Metamorphoses of Musical Form," 5-6.

<sup>8</sup> Ibid., 8.

mation between textures. Two concepts, namely 'stasis' and 'synthesis' can be used to describe this fluid movement of transformation. 'Stasis' refers to a musical object existing, changing and moving in space.<sup>9</sup> 'Synthesis' may be considered analogous to 'homogeneity' and suggests that individual lines lose their identity when placed within the context of the larger, complex musical structure.<sup>10</sup> Ligeti further defines his notion of transformation in relation to the material characteristics of sounds (for instance, grainy, fibrous, sticky and compact) and suggests that the transition from heterogeneity to complete integration is achieved through contrast and juxtaposition of these textures.<sup>11</sup> From this, Ligeti begins to outline his notion of musical space in relation to time; in particular, he suggests that transformation of sound is perceived as the simultaneous expansion of a series of sound events presented successively in time. This perception of simultaneity occurs when one is able to apprehend transformations of sound in the surface texture of a piece. Recognition of this process as the unification of aural space and duration can also be understood as spatialization of sound.<sup>12</sup> Ligeti effectively relates this sensation of surface material to the distinction between tactile creation of a painting and the beholder's visual experience; although the

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<sup>9</sup> It should be noted that Ligeti also referred to 'stasis' in contrast to dynamic movement of surface texture.

<sup>10</sup> Lobanova, *György Ligeti: Style, Ideas, Poetics*, 32.

<sup>11</sup> Ligeti, "Metamorphoses of Musical Form," 15.

<sup>12</sup> 'Spatialization' in this sense is not to be confused with the terms more common reference to the multi-channel diffusion of sound within a particular space.

transformation of texture and colour is created over time, it is presented at-once to the viewer. This is possible given that representation of two-dimensional space is not restricted to occur over time. Ligeti suggests that simultaneity is similarly attainable in time-based forms such as music, citing the deconstruction of temporal-flow in literary works such as James Joyce's 'Ulysses'. He suggests that in this text, the manipulation and interweaving of unrelated thoughts and events creates an effect of suspended time.<sup>13</sup>

The beginnings of these views can be traced back to several of Ligeti's pre-emigration experiments with "montage", a process in which canonical techniques are employed to create multi-dimensional sound-space. In particular, several theorists have selected both *Métamorphoses nocturnes* (1953-54) and *Éjszaka, Reggel* (1955) as works that exemplify the use of canon for creating clusters of sound and the juxtaposition of contrasting ideas.<sup>14</sup> In figures 1 and 2, one notes that the canonical technique has been employed in *Métamorphoses nocturnes* in order to create an overall texture that is dense and filled with sound at every point. In figure 2, the canon-

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<sup>13</sup> Ibid., 15-17.

<sup>14</sup> Several other composers, such as Varèse and Cowell, had experimented with the use of tone clusters in the 1940s, which enforces the view that the sound-mass did not rise out of, but was rather supported by, the advent of electronic technology. Stockhausen's experiments with texture and dense sonorities, beginning with instrumental works such as *Punkte* (1952), *Kontra-Punkte* (1952-53) and *Gruppen* (1955-57), and his progression toward larger transformations of sound in *Carré* (1960) and *Momente* (1963) illustrate this point.

[illegible]

515. 520

IV. *sim.* *ff*

IV. *sim.* *ff*

IV. *sim.* *ff*

*sim.* *ff*

allargando e crescendo - - - - - molto allargando („theatralisch“ / „theatrical“) - - - - -

525 530

**Figure 2.** Measures 514-530 of *Métamorphoses nocturnes*.

<sup>15</sup> Figures 1 and 2, *Streichquartett Nr. 1 (Métamorphoses nocturnes)* © 1972 by Schott Music GmbH & Co. KG. All rights reserved. Used by permission of European American Music Distributors, sole U.S. and Canadian agent for Schott Music GmbH & Co. KG.

S. ren - ge-teg, ren - ge-teg, tö - vis, ren - ge-teg, ren - ge-teg, ren - ge-teg, ren - ge-teg,  
 wil - der-ness, thor - ny huge, jun-gles, in - fi-nite wil - der-ness, mi - ste-ry  
 Wäl - der und Wäl - der voll Sta-chen, Wäl - der und Wäl - der und Wäl - der voll

A. ren - ge-teg, ren - ge-teg, ren - ge-teg, tö - vis, ren - ge-teg, ren - ge-teg,  
 wil - der-ness, wil - der-ness, thor - ny huge, jun-gles, in - fi-nite wil - der-ness,  
 Wäl - der und Wäl - der voll Sta-chen, Wäl - der und Wäl - der voll

T. ren - ge-teg, tö - vis, ren - ge-teg, tö - vis, ren - ge-teg, ren - ge-teg,  
 mi - ste-ry fo - rests, thor - ny huge jun-gles, in - fi-nite wil - der-ness,  
 dor - ni - ge Wild-nis, Wäl - der voll Sta-chen, Wäl - der und Wäl - der und

B. tö - vis, ren - ge-teg, tö - vis, ren - ge-teg, tö - vis, ren - ge-teg,  
 jun-gles, mi - ste-ry fo - rests, thor - ny huge jun-gles, in - fi-nite  
 Sta-chen, dor - ni - ge Wäl - der voll Sta-chen, Wäl - der und Wäl - der und

S. tö - vis, ren - ge-teg, ren - ge-teg, ren - ge-teg, ren - ge-teg, ren - ge-teg, ren - ge-teg,  
 fo - rests, in - fi-nite wil - der-ness, in - fi-nite wil - der-ness, in - fi-nite  
 Sta-chen, Wäl - der und Wäl - der und Wäl - der und Wäl - der und Wäl - der und

A. ren - ge-teg, tö - vis, ren - ge-teg, ren - ge-teg, ren - ge-teg, ren - ge-teg, ren - ge-teg,  
 mi - ste-ry fo - rests, in - fi-nite wil - der-ness, in - fi-nite wil - der-ness,  
 Wäl - der voll Sta-chen, Wäl - der und Wäl - der und Wäl - der und Wäl - der und

T. ren - ge-teg, ren - ge-teg, ren - ge-teg, ren - ge-teg, tö - vis, ren - ge-teg,  
 in - fi-nite wil - der-ness, thor - ny huge, thor - ny huge jun-gles, in - fi-nite  
 Wäl - der und Wäl - der und Wäl - der und Wäl - der voll Sta-chen, Wäl - der und

B. ren - ge-teg, ren - ge-teg, ren - ge-teg, tö - vis, ren - ge-teg, tö - vis,  
 wil - der-ness, thor - ny huge, jun-gles, mi - ste-ry fo - rests, wil - der-ness,  
 Wäl - der und Wäl - der und Wäl - der voll Sta-chen, dor - ni - ge Wild-nis,

**Figure 3.** Measures 24-35 of *Éjszaka*.<sup>16</sup>

<sup>16</sup> Figure 3, *Nacht - Morgen (Éjszaka, Reggel)* © 1973 by Schott Music GmbH & Co. KG. All rights reserved. Used by permission of European American Music Distributors, sole U.S. and Canadian agent for Schott Music GmbH & Co. KG.



### **Analysis of Ligeti's Electronic Music (1957-1958) and Nature of Appropriation in Micropolyphony (1960-1961)**

Despite Ligeti's geographic isolation in the East, early exposure to the electronic music of composers such as Stockhausen instilled in him an acute understanding of the electronic music studio as a place in which any compositional idea could be realized. In particular, layering processes such as those employed in multi-track recording provided another method for implementing montage in the overall formal structure. Moreover, the ability to synthesize and actively manipulate individual sounds over time suggested a tangible way of representing analogous larger-scale transformations in structure and surface texture. In "Wandlungen", Ligeti briefly discusses electronic composition and the ease of interpenetration that occurs when individual structures are created and then superimposed, asserting that this produces layers of forms, each of a different quality.<sup>17</sup> As such, Ligeti's early compositional attraction to electronics is often viewed as a motivating factor in his relocation to Cologne in 1957.

The post-war avant-garde aesthetic present at Darmstadt and Cologne in the 1950s, particularly in response to the advent of electronic music, was one based largely on the acceptance of non-traditional sounds and expanded control of sound parameters such as dynamics, tone colour and envelope, in addition to pitch and rhythm. New approaches to composition made possi-

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<sup>17</sup> Ibid., 9.

ble by electronic media existed in two prominent forms; namely, magnetic tape and its associated recording devices, as well as primitive synthesis equipment such as sine tone generators, filters, reverberators, noise generators, ring modulators and envelope generators. The former lent itself to experimentation with techniques of pastiche, montage and collage while the latter supported a Futurist expansion of acceptable and possible sounds. Both technologies offered composers direct access to a variety of sound parameters and, thus, a more kinetic form of control. The *elektronische Musik* aesthetic at the Cologne studios meant that the preferred sources of sound material were those that had been generated electronically.<sup>18</sup> During Ligeti's period of residence at the NWDR, the available equipment consisted of a sine tone generator that produced exact whole number frequencies between 30 and 11 000 Hz, a selective dial generator for producing glissandi between tones, low frequency and beat-frequency oscillators used for amplitude modulation, a variety of filters including high-pass, low-pass, band-pass and band-stop, impulse and noise generators, a variable speed recorder as well as units for ring modulation and reverberation.<sup>19</sup>

With respect to theoretical concerns and methodology, Cologne was also associated with the development of

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<sup>18</sup> One notable exception is Stockhausen's *Gesang der Jünglinge* (1955-56), which employs manipulated vocal recordings.

<sup>19</sup> Benjamin R. Levy, "The Electronic Works of György Ligeti and Their Influence on His Later Style" (PhD diss., University of Maryland, 2006), 35-36.; Elliot Schwartz and Daniel Godfrey, *Music Since 1945: Issues, Materials and Literature* (New York: Schirmer Books, 1993), 113.

total serialism in the European avant-garde; that is, the expansion of serialist control away from exclusive focus on pitch to include elements of rhythm, duration, timbre, dynamics and register. Interestingly, however, theories of music controlled by aleatory and chance-operations were also circulating at Cologne in the latter half of the 1950s, primarily through lectures given by John Cage at the Darmstadt summer school in 1958. As a result, several Cologne composers also experimented with aspects of aleatory and improvisatory technique, such as Boulez with his later work *Pli selon pli* (1957-62). Although traces of serialism could still be found in Ligeti's pre- and post-emigration works, his aesthetic rejection of both serialism and aleatory suggests that his interest in turning towards electronic music composition was based upon finding an appropriate medium in which to further develop his ideas.

While at Cologne, Ligeti gained a greater technical understanding of electronic music composition by assisting Koenig in the studios and by observing Stockhausen while he worked on his own electronic compositions. It was during this period of experimentation that Ligeti began to expand his notions of density and texture with the theorization of illusory polyphony; that is, polyphony that is hidden within a complex monophonic sound mass and emerges through continual transformation of form, structure and surface material. Both Stockhausen in his 1955 article "Structure and Experiential Time" and Koenig in his *Essay* of 1957 indirectly expressed this idea; they describe a phenomenon in which sine tones, when slowed down, reveal hidden interior rhythms as well as extended harmonic and sub-harmonic spectra. Koenig took this idea further in his explication of the neutralization of rhythm

that occurs in electronic music. He suggests that sequences of notes or rhythms can be sped up such that they are no longer audible as discrete movements, but are rather perceived as a singular static object.<sup>20</sup> These descriptions are particularly significant for Ligeti's concept of micropolyphony; by superimposing individual contexts of manipulated sine tones, a sort of micro or sub-surface polyphony is revealed as a concrete shape. Moreover, the treatment of a single sine tone as a musical structure transformed over time fosters the notion of a continual sound-space to unify the piece. Many of Ligeti's experimentations with electronics focused on the implementation of additive synthesis and multi-track recording to produce complex layers of sound that could be regulated between the foreground and background through subsequent filtering. The band-pass filter in particular became an important tool for working with layers of sound; the filter could be used to emphasize different bands of either definite-pitched tones or noise while attenuating the extraneous frequencies. These isolated bands could then be recorded as individual lines and superimposed through additional recording. Furthermore, real-time control of the filter could be used to sculpt the structural shape of the piece as it unfolded. In this way, it is apparent that acquiring a technical knowledge of electronic music composition was pivotal in Ligeti's development of a functioning notion of micropolyphony.

Throughout 1957 and 1958, Ligeti produced three electronic works at the NWDR. *Glissandi* (1957) is often viewed as a study in studio technique and, as the name

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<sup>20</sup> Lobanova, *György Ligeti: Style, Ideas, Poetics*, 39.

suggests, it explores the interpenetration of different instances of glissando in order to produce both continual and discrete transformations of sound. Although this piece does not focus on the development of micro-structure and illusory polyphony, it is an interesting illustration of the elongation of timbral transformation and juxtaposition. Ligeti's second electronic work, *Pièce Électronique No. 3*, was initially begun in 1957 as a notated work. Although the score was eventually abandoned, this piece exemplifies many of Ligeti's pre-migration concerns with transformation and motion of sound and, in particular, the perceptibility of these transformations. The piece employs processes of additive synthesis, superimposition and filtering of different harmonic and sub-harmonic sound spectra, including pure sine tones and white noise. The individual spectra and differential tones are varied such that they move between foreground and background; individual tones become clearly perceptible as they transition into the foreground and, as they are gradually overpowered by new sounds, they become muddled within the fully integrated background texture. In this piece, Ligeti intentionally kept the sound materials in constant states of motion and transformation in order to avoid musical stasis, a phenomenon he believed would result in a flattening-out of sound. These experiments with sound spectra and transformation were further explored in *Artikulation* (1958), Ligeti's final electronic music composition. Not unlike Stockhausen's *Gesang der Jünglinge* and Luciano Berio's *Thema: Omaggio a Joyce*, *Artikulation* explores the possibilities of language and processed speech-sounds. Although *Artikulation* in itself is considered a viable work of electronic music, the extent to which the uniquely electronic method of sound transformation informed Ligeti's concept of micropolyphony,

and the way in which he appropriated these techniques into his later instrumental works, is best illustrated by *Pièce Électronique No. 3*.

Interestingly, *Pièce Électronique No. 3* began with the title *Atmosphères*, however this title was abandoned along with the partially notated score for the work. Although Ligeti does not acknowledge any significance to the borrowed title, an aesthetic and technical correlation between the two works cannot be denied. Both share a similar sound quality, characterized by slow-moving progressions of sound as well as contrasting fluctuations of density and diffusion or sparseness. In particular, the two works share similar formal gestures and movements. Figure 4, a descriptive score corresponding to the cited recording of *Pièce Électronique No. 3*, was the main point of reference used for this analysis in the absence of an actual notated or aural score. The first ten seconds of the piece open with a dense, noise-like tone, from which a number of frequencies are then filtered out at seven seconds. The second time this tone sounds and is filtered, one can detect subtle melodic structures emerging from the background. This tone then undergoes a sort of glissandi transposition at 0:21, at which point density is increased with the gradual addition of individual tones and melodic lines. The next section, from 0:37 until 1:05, employs overlapping glissandi in order to again build up a dense texture that continues on as the background material for the subsequent section. At 1:06, various other textures (such as glissandi, filtered shapes and brief impulse tones) are sounded and merge to create a new background texture. The final section, from 1:40 until the end of the piece, explores another method of textural build through glissandi. Short “units” of glissandi are inter-

jected with brief moments of silence; with each subsequent unit, the texture becomes denser until the final unit reaches a largely homogeneous texture. The Webernian pointillist technique can be seen to have influenced this section.

<b>0:00 - 0:10</b>	cluster, starting to filter at 0:07
<b>0:11 - 0:20</b>	second cluster, filtering and short lines emerging
<b>0:21</b>	cluster begins to transpose upwards
<b>0:26 - 0:33</b>	more tones added, greater density
<b>0:33</b>	initial tone continues as subsidiary lines begin to sound
<b>0:37 - 0:49</b>	glissandi effect, overlapping
<b>0:50 - 1:05</b>	build-up of cluster
<b>1:06 - 1:29</b>	superimposition of different textures (initial tone, glissando at 1:15, filtering, impulse at 1:18, melodic lines at 1:21)
<b>1:30 - 1:39</b>	background texture (static tone) and glissandi
<b>1:40 - 1:42</b>	glissando
<b>- silence -</b>	
<b>1:47 - 1:56</b>	more complex glissando, gradually moving from independent units to a homogeneous unit/sound
<b>- breath -</b>	
<b>1:58 - 2:00</b>	compact glissando “unit”
<b>- breath -</b>	
<b>2:00 - 2:05</b>	glissandi moving to another static texture (homogeneous)

**Figure 4.** Descriptive analysis of *Pièce Électronique No. 3*.

Many of the processes described above, as well as several general concepts related to the electronic process of transformation and superimposition, are further explored in *Atmosphères*. The cluster chord that opens the piece - 55 pitches spread over almost 4 octaves - is in close likeness to dense structure that opens *Pièce Électronique No. 3*. Moreover, figure 5 shows how the electronic filtering technique, similar to that which follows the presentation of the initial tone in *Pièce Électronique No. 3*, has been appropriated in instrumental notation; the opening cluster chord in *Atmosphères* is slowly filtered to reveal only the sounds of the viola and cello at section A. This sort of timbral filtering (isolation of certain instruments) also transforms tone colour throughout the piece. Another homophonic cluster chord similar to that used in the opening is found further in the piece at measures 66 – 74 (Figure 6). Appropriation of another type of band-pass filtering or additive process can be seen in figure 7; transition from a singular tone to another dense texture is created through the gradual addition of closely positioned pitches. By also incrementally decreasing note value throughout the build-up of this texture, even greater density is achieved. Yet another form of filtering is shown in figure 8; in the closing measures of the piece, a transformation from dense to sparse texture is done by intermittently removing certain instruments while spacing out others in order to keep the sound continuous.



**Figure 5.** Measures 1-12 of *Atmosphères*.<sup>21</sup>

<sup>21</sup> Figures 5-13, *Atmospheres* © 1963 by Universal Edition A.G.,



**Figure 7.** Measures 23-27 of *Atmosphères*.

The image displays a page from a musical score, specifically measures 98 through 102 of the piece *Atmosphères*. The score is written for a large ensemble, including vocalists and various instruments.

**Vocal Parts:**

- TSb (Tenor Soprano):** Measures 98-102. The lyrics are: "pe d'atmosphères, fantômes, amants".
- Tha (Tenor Alto):** Measures 98-102. The lyrics are: "des hommes et autres êtres de sang et de chair, des hommes et autres êtres de sang et de chair".
- PL (Piano):** Measures 98-102. The lyrics are: "des hommes et autres êtres de sang et de chair, des hommes et autres êtres de sang et de chair".

**Instrumental Parts:**

- VI. I (Violin I):** Measures 98-102. The part is marked "p" (piano).
- VI. II (Violin II):** Measures 98-102. The part is marked "p" (piano).
- Vln. (Violoncelle):** Measures 98-102. The part is marked "p" (piano).
- Vc. (Violoncelle):** Measures 98-102. The part is marked "p" (piano).
- Ch. (Chœur):** Measures 98-102. The part is marked "p" (piano).

The score is written in a standard musical notation with a key signature of one flat (B-flat) and a time signature of 4/4. The measures are numbered 98, 99, 100, 101, and 102. The page number 132 is visible in the bottom left corner.

Figure 8. Measures 98-102 of *Atmosphères*.

Figure 9 represents a particularly interesting point in the piece as it illustrates instantiations of several different electronic processes. A transition-filtering effect can be seen between the two violins in which a glissando into the next higher register is also created. Moreover, neutralization of rhythm and texture occur in this section as a result of the overlapping and juxtaposition of different rhythms. This technique can be found throughout much of the piece, as in figures 10 – 12. Figure 12 also shows appropriation of the electronic “impulse” tone; in electronic music composition, impulse generators are used to produce discrete, finite tones whereas oscillators (or sine tone generators in the case of *Pièce Électronique No. 3*) and noise generators are more easily applicable for creating continuous and droning tones. While Ligeti’s static clusters can be seen to resemble fixed, continuous tones, the brief “units” of sound in this section can be interpreted as impulses. These units are then layered, juxtaposed and overlapped in order to produce a dense texture, within which unique rhythmic or melodic lines may surface. Finally, figure 13 illustrates another method of fluid transition between dense and sparse texture based on the principle of overlapping and suspension of tones.<sup>22</sup>

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<sup>22</sup> It should also be noted that there are certain instances in both *Pièce Électronique No. 3* and *Atmosphères* in which the two simply sound similar. For instance, there is a glissando that occurs between 3:20 and 3:43 in *Atmosphères* which very closely resembles a glissando that occurs between 0:20 and 0:37 in *Pièce Électronique No. 3*. Similarly, a similar melodic line emerges between 7:17 and 8:00 in *Atmosphères* and 0:33 and 0:37 in *Pièce Électronique No. 3*.

The image displays a musical score for measures 45-50 of the piece *Atmosphères*. The score is written for multiple staves, likely representing different instruments or voices. The notation is complex, featuring various note values, rests, and dynamic markings. The score is organized into five systems, each containing multiple staves. The first system (measures 45-46) shows a dense texture with many notes. The second system (measures 47-48) continues this complexity. The third system (measures 49-50) shows a more sparse texture. The fourth system (measures 51-52) is mostly empty, with only a few notes. The fifth system (measures 53-54) is also mostly empty. The score is written in a style that is characteristic of the late 19th or early 20th century, with a focus on texture and dynamics. The dynamic markings include *dim.*, *poco a poco*, *pp*, *pppp*, *morendo*, and *pppp*. The score is numbered 11418 at the bottom right.

dim. poco a poco  
pppp morendo

11418

Figure 9. Measures 45-50 of *Atmosphères*.

The image displays a page from a musical score, specifically measures 51 through 53 of the piece *Atmosphères*. The score is written for a large ensemble, including strings, woodwinds, brass, and voices. The notation is complex, featuring many beamed notes and rests, characteristic of the dense, atmospheric texture of the work. The page is numbered 135 in the top right corner. The score is organized into systems, with measures 51, 52, and 53 clearly marked. The instruments and voices are labeled on the left side of the staves. The notation includes various musical symbols such as clefs, time signatures, and dynamic markings.

Figure 10. Measures 51-53 of *Atmosphères*.

**Figure 11.** Measures 62-65 of *Atmosphères*.



97

The Union and Village House as Reflected in the  
The Union and Village House as Reflected in the  
The Union and Village House as Reflected in the  
The Union and Village House as Reflected in the

FL

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97.

VL I

VL II

Vln

Vcl

Cb

98

UE 11 418

Figure 12. Measures 93-97 of *Atmosphères*.

4/4 (♩ = 60) (oder langsamer / or slower) [K] [L]

Fl. 1. 2. 3. 4.

Cl. 1. 2. 3. 4.

Fg. 1. 2.

Cor. 1. 2. 3. 4.

Tr. 1. 2.

Tbn. 1. 2.

VL I 1. 2. 3. 4.

VL II 1. 2. 3. 4.

Vln. 1. 2. 3. 4.

VL 1. 2. 3. 4.

CL. 1. 2. 3. 4.

Ch. 1. 2. 3. 4.

Legend:

- <sup>1</sup> unendlich abnehmend / imperceptible effect
- <sup>2</sup> goes into horn / already without the aid of the horn

Figure 13. Measures 54-57 of *Atmosphères*.

As this analysis shows, many of the ideas Ligeti had outlined in “Wandlungen” were still predominant components of his concept of micropolyphony. *Atmosphères* may be viewed as an extension of *Pièce Électronique No. 3* in that it continues to deal with the juxtaposition and continual fluctuation of sounds, as well as the degree to which individual sounds are either made perceptible or are interpenetrated among the sound-mass. However, there are notable differences between *Atmosphères* and works such as *Métamorphoses nocturnes* and *Éjszaka, Reggel*, many of which are evident simply by comparing the notated material; *Atmosphères* exhibits a vastly more dense texture and a particular attention to register. The montage and canonical technique of the pre-emigration works has been replaced by the use of expansive cluster-chords and a more integrated method of overlapping and superimposition. Moreover, given that the primary focus of *Atmosphères* is based on gradual transition and transformation of a unified sound-mass over time, the work takes on largely minimalistic and monolithic character. As a result of his experimentation with electronic music composition, Ligeti acquired and incorporated into his concept of micropolyphony newly expanded notions of density and transformation. The treatment of sound in electronic music as an individual entity that, when manipulated, reveals hidden forms and structures seems to have supported an organic notion of unification and cohesion. To this end, the sound material of *Atmosphères* is treated as a single, homogeneous unit of sound that is molded and shaped over time. Micro-structure is another important feature of Ligeti’s concept of micropolyphony, and it can be seen that the theorization of illusory rhythm in electronic music composition has been directly translated into illusory polyphony in instrumental music; when the

musical structure is manipulated, lines and shapes that were once hidden in the background texture become perceptible in the surface material. In relation to this process, the technique of actively filtering complex frequency-collections (such as white noise) to attenuate particular bands of sound is apparent in the gradual shaping of dense formations in *Atmosphères*; clusters of sound are transformed by gradually decreasing and increasing the number of notes used to make up the chord. *Atmosphères* employs the full orchestra and by subtly varying the instruments and timbres used to produce the cluster at any given time, the tone colour of the macro-structure is also manipulated. Furthermore, these techniques of electronic transformation all seem to have informed a new understanding of density and cluster; instead of expansion through chromaticism, density is established in *Atmosphères* through the statement of a single massive complex texture (the cluster chord of the opening bars) that is continually deconstructed and reconstructed throughout the remainder of the work. This correlates directly to electronic processes of filtering, in which particular frequency bands of complex or dense tones (such as white noise) are emphasized while others are removed, as well as electronic processes of additive synthesis, in which the complexity of simple sine tones is gradually increased through the addition of various harmonic spectra. Infinite sustenance of these sound transformations is made theoretically possible by the mechanistic nature of electronic equipment; indeed, the monolithic character of *Atmosphères* evokes the almost tangible image of an ever-changing object suspended in time.

### **Conclusions Regarding the Limitations of Transformation and Perception in Electronic Music Composition**

Ligeti abandoned the electronic medium after *Artikulation* in order to fully realize his concept of micropolyphony through instrumental means, which he felt was the only appropriate way of expressing this idea. As such, it is worth considering which characteristics of electronic music composition Ligeti cites as inhibiting for sufficiently implementing the tenets of micropolyphony into a musical work. Ligeti does not describe any particular issues with the electronic sound in itself; that is, he does not suggest that the timbral quality of electronically generated tones is in any way inferior to that of acoustic instruments. It seems instead that Ligeti's difficulties with the electronic medium are based on an inability to perceive the actual process of sound transformation. As discussed, Ligeti's concept of perception in relation to transformation of sound is directly related to his notion of simultaneity. Although Ligeti was initially attracted to electronics as a way of implementing his earlier concepts, he was unable to overcome problems associated with creating a unit of sound that remains continuous over time, throughout alterations, transformations and manipulations.

Ligeti does not explicitly document his reasons for rejecting electronic music composition in any prominent writings from the 1960s, however several conclusions could be drawn based on the comparison of the previous section. It could be argued that the difficulty of perception is related to the fact that, in electronic mu-

sis, illusory and micropolyphony is created with intention in the compositional process and not in the sounding process; the composer intentionally isolates certain structures for the listener to perceive. As a result, the “revealed” quality of micropolyphony is lost in that one does not actually perceive or experience the transformation of sound over time; rather, they only hear it after-the-fact. In this way, the structures that emerge in these processes of transformation become static artifacts instead of dynamic, transitioning events. This becomes problematic with respect to Ligeti’s view that although contrapuntal lines do occasionally sound individually within a sound mass, they are still meant to be indistinguishable from the larger texture. As such, a lack of simultaneity occurs when the work is not perceived as a singular, homogeneous unit that moves and changes over time. A more succinct description of Ligeti’s difficulties with perception of transformation in electronic music can be considered in reference to the notion of integration.<sup>23</sup> As mentioned, both Koenig and Stockhausen describe the electronic music compositional process as one in which individual lines or structures are first created and then subsequently superimposed amongst one another. Although this technique at one time appeared to Ligeti as a viable solution for the creation of density and texture, the disconnected nature of this process seems precisely the reason he felt unable to integrate sounds such that their transformations would be perceived as homogeneous. In the instrumental realm, transformations occur concurrently; it is the *immediacy* of the listening experience that allows

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<sup>23</sup> Ibid., 45.

the listener to perceive the work as a unified sound-mass that simply transforms itself over time.

Despite rejecting electronic media as the tools for realizing micropolyphony, Ligeti did still maintain adherence to several aesthetic sensibilities and methodologies specific to electronic music-making practices; namely, transformational processes that affected the treatment of sound and the manipulation of density. These qualities were appropriated quite predominantly into his concept of instrumental micropolyphony and, without some incorporation of the electronic aesthetic, it may be argued that the concept as such could not have fully developed.

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**Abstract**

The technical and aesthetic foundations of György Ligeti's concept of micropolyphony, which he employed most prominently in his 1961 orchestral work, *Atmosphères*, can be credited, in part, to his post-emigration experiments with electronic composition at the studios of the NWDR in Cologne in the late 1950s. Although Ligeti had already theorized general concepts of musical texture and space prior to his emigration to the West in 1956, the nature of the micropolyphony he employs in his later work is characteristically distinct, exhibiting a greater sensitivity to density and timbre in addition to processes of aural integration and interaction. To this end, this analysis examines the way, and more importantly the extent to which, Ligeti's often overlooked work in electronic music directly influenced his approach to the implementation of sound-mass in his later methodology. This is done through a comparison of *Pièce Électronique No. 3*, an electronic work begun in 1957, and *Atmosphères*. This comparison lends support to the contention that, despite his rejection of the electronic medium as a tool for practical implementation, Ligeti maintained several aesthetic sensibilities specific to electronic music-making practices; namely, the treatment of texture and the transformation of sound.

# Biographies

**Twila Bakker** completed her Bachelor of Arts in 2008 at the University of Alberta, majoring in both History and Music. After graduating, Twila's passion for music led her to the University of Victoria where she pursued her Master of Arts in Musicology. Her thesis, "Two Responses to Modernism: Minimalism and New Complexity in Solo Flute Repertoire" was completed under the supervision of Dr. Jonathan Goldman in 2011. An active freelance flutist, she has had the privilege to premiere numerous compositions.

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**Stuart Paul Duncan**, born in Dover, England (in 1983), received his doctorate in Composition from Cornell University where he completed his dissertation entitled "The Concept of New Complexity: Notation, Interpretation and Analysis." This research has led to publications in *Perspectives of New Music* and *Search: Journal of New Music and Culture*. Prior to his doctorate, Duncan completed a Master's degree in composition with Roger Redgate at Goldsmiths College and his Bachelors under the guidance of Dr. Roderick Watkins at Canterbury Christ Church University. Currently, Duncan is pursuing a further doctorate in Music Theory at Yale University.

**Heather Olaveson** recently completed her MMus degree in composition at the University of Victoria and went on to attain an MA in English at her other alma mater, Wilfrid Laurier University. She is fascinated by the relationship between text and music and hopes to continue to combine her two fields in future research. She is also active as a pianist, particularly as a vocal accompanist.

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