

STRUCTURAL OCTATONICISM IN CINDY MCTEE'S

SYMPHONY NO. 1: BALLET FOR ORCHESTRA

Jennifer L. Weaver, B.M.E.

Thesis Prepared for the Degree of

MASTER OF MUSIC

UNIVERSITY OF NORTH TEXAS

August 2007

APPROVED:

Joán Groom, Major Professor

David Schwarz, Minor Professor

Margaret Notley, Committee Member

James Scott, Dean of the College of Music

Sandra L. Terrell, Dean of the Robert B. Toulouse

School of Graduate Studies

Weaver, Jennifer L. Structural Octatonicism in Cindy McTee's *Symphony No. 1: Ballet for Orchestra*, Master of Music (Music Theory), August 2007, 68 pp., 36 illustrations, bibliography, 17 titles.

Cindy McTee's *Symphony No. 1: Ballet for Orchestra* is composed primarily of pitch materials from the octatonic collections that contain both diatonic and non-diatonic relationships in the themes, harmonic content, and larger structure of the symphony. Because the octatonic collections contain the potential for both diatonic and non-diatonic relationships, the piece is argued to have octatonic structure, as the octatonic collection is capable of producing both relationships. The second chapter contains a review of the literature, focusing particularly on the work of Arthur Berger, Pieter C. van den Toorn, Richard Taruskin, and Allen Forte. Next, the octatonic structure of the symphony is shown in the thematic material. Finally, the harmonic support and large-scale structure of the piece are shown to contain octatonic relationships as well.

Copyright 2007

by

Jennifer L. Weaver

TABLE OF CONTENTS

	Page
LIST OF MUSICAL EXAMPLES.....	iv
Chapter	
1. INTRODUCTION	1
2. A REVIEW OF THE OCTATONIC COLLECTIONS IN SCHOLARSHIP	6
3. OCTATONICISM AND THE THEMES OF SYMPHONY NO. 1: BALLET FOR ORCHESTRA	26
4. HARMONY AND STRUCTURE.....	44
BIBLIOGRAPHY.....	68

LIST OF MUSICAL EXAMPLES

		Page
2.1	Three of the six possible octatonic scales and the pitches excluded from each collection	6
2.2	Schubert, <i>Symphony in C Major</i> , D 944, IV, mm. 1057-1105	15
2.3	Rimsky-Korsakov, <i>Kashchei bessmertnyi</i> , Scene ii, (mm. 171-175)	17
2.4	Traditional sonorities as octatonic and whole-tone subsets	23
2.5	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On With the Dance, mm. 25-32	24
3.1	(a) Melodic fragment containing only octatonic pitches but displaying tonal implications	26
	(b) Octatonic melodic fragment	27
3.2	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On with the Dance, mm. 7-11	28
3.3	Penderecki, <i>The Polish Requiem</i> , Agnus Dei, m.1	30
3.4	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Adagio: Till a Silence Fell	32
3.5	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On With the Dance, mm. 204-207	33
3.6	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Adagio: Till a Silence Fell, mm. 46-55	34
3.7	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Adagio: Till a Silence Fell, mm. 77-85	35
3.8	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On with the Dance, Opening Theme and Transposition of the Theme	36
3.9	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On with the Dance, mm. 76-101	37
3.10	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On with the Dance, mm. 111-114	38
3.11	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On with the Dance, mm. 121-125	38

3.12	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On with the Dance, mm. 164-175	39
3.13	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Waltz: Light Fantastic, mm. 50-56	40
3.14	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Finale: Where Time Plays the Fiddle, mm. 1-11	41
2.15	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Finale: Where Time Plays the Fiddle, mm. 68-81	42
4.1	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On with the Dance, mm. 48-60	45
4.2	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On with the Dance, mm. 208-220	47
4.3	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Adagio: Till a Silence Fell, mm. 62-68	49
4.4	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Waltz: Light Fantastic, mm. 8-10	50
4.5	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Waltz: Light Fantastic, mm. 50-56	51
4.6	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Finale: Where Time Plays the Fiddle, mm. 1-11	52
4.7	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Finale: Where Time Plays the Fiddle, mm. 21-22	53
4.8	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On With the Dance, mm. 1-12	55
4.9	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , On With the Dance, mm. 30-33	56
4.10	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On With the Dance, mm. 37-47	57
4.11	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Introduction: On With the Dance, mm. 379-384	59
4.12	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Adagio: Till a Silence Fell, mm. 155-163	60
4.13	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Finale: Where Time Plays the Fiddle, mm. 60-61	62
4.14	McTee, <i>Symphony No. 1: Ballet for Orchestra</i> , Finale: Where Time Plays the Fiddle, mm. 175-181	64

4.15 McTee, *Symphony No. 1: Ballet for Orchestra*, Finale: Where Time Plays the Fiddle,
mm. 219-22865

CHAPTER 1

INTRODUCTION

In the last century the octatonic collection appears in the music of many different composers and is argued about in scholarly writings. It often appears in discussions about symmetrical scales, such as the whole tone scale, that are often employed in music written after 1900. While the construction of the octatonic collection and the whole tone collection may have some similar features, the octatonic collection is very distinct. The potential within the octatonic collection to create or subvert diatonic relationships through symmetrical *or* asymmetrical division of the octave makes it of great significance to the music of the post-tonal era.

Symphony No. 1: Ballet for Orchestra, composed by Cindy McTee, contains both symmetrical and asymmetrical divisions of the octave in its themes, harmonic organization, and large-scale structure. It makes use of the potential contained within the octatonic collection to emphasize a pitch or pitch relationships by using diatonic relationships without being structurally dependent upon them. It is for this reason that I argue that *Symphony No. 1: Ballet for Orchestra* is structurally octatonic.

This is not to suggest that the piece contains hidden generative structural transformations, but instead to assert that the octatonic collection functions as the constructive force behind the structure of the symphony. The diatonic sonorities, which do occur throughout the piece, can be found within octatonicism and therefore work in coordination with the octatonic collection, a relationship that is audible on the surface level of the piece. Referential octatonicism, a concept that is discussed in Chapter 2, is then defined as a use of the octatonic collection that is decorative to the functionally tonal elements of a work. In other words, the octatonic collection can appear in a way that does not subvert the diatonic or functionally tonal

relationships in a piece. A piece that uses the collection in this way, however, could not be considered structurally octatonic.

Before arguing this, however, I must present a timeline of my interaction with the composer and her work. I discovered McTee's compositions first through another work entitled *The Twittering Machine*. After observing her use of the octatonic scale in that piece, I sought out other works to analyze. In this search, I discovered *Symphony No. 1: Ballet for Orchestra* and became interested in the piece, ultimately choosing it as the focus of this paper. As I studied the piece, it became clear that I must understand more about the octatonic collection both as it has been employed by composers and as it has been discussed by researchers. As I read, I discovered that many scholars see the octatonic collection as inextricably linked to the diatonic collection because of its use in many early works of the 20th century. These arguments are all discussed in detail in Chapter 2 of this paper.

Unfortunately, these explanations did not apply to *Symphony No. 1: Ballet for Orchestra* as easily as they do to earlier pieces because, while the symphony does contain some obvious diatonic relationships, it is also structured so as to avoid explicit diatonicism. The more I read the scholarship and studied *Symphony No. 1: Ballet for Orchestra*, the more I came to see this relationship as critical to understanding octatonicism and its structural capabilities. Because the octatonic scale can divide the octave symmetrically and asymmetrically, it can be used to decorate the diatonic collection or as a structurally significant collection (a distinction I cannot take credit for as it comes from an article written by Jean Michel-Boulay and discussed further in Chapter 2)¹. McTee's *Symphony No. 1: Ballet for Orchestra* exhibits the latter.

¹ Jean-Michel Boulay, "Octatonicism and Chromatic Harmony," *Canadian University Music Review* 17, no.1 (1996): 41.

With this distinction in mind, I completed my analysis of the work in September of 2006, arguing that *Symphony No. 1: Ballet for Orchestra* is structurally octatonic due to its employment of the octatonic collection in such a way as to divide the octave both symmetrically *and* asymmetrically. I then met with the composer for an interview on October 13, 2006. This timeline is critical to the argument because the composer's sketches support the octatonic collection as structurally significant and should not be ignored though they did not serve to generate the initial argument that the piece is structurally octatonic.

In the interview, McTee provided information about the commissioning of *Symphony No. 1: Ballet for Orchestra*, her compositional process, and her ideas regarding the octatonic collection. She also provided me with sketches, outlines, and other materials from her personal collection of materials related to the symphony. While I refer to these materials throughout the paper, as I have already stated, they did not influence the initial analysis or argument regarding the piece.

Symphony No. 1: Ballet for Orchestra was commissioned by Leonard Slatkin to be performed by the National Symphony. While the commission did not require McTee to compose a symphony specifically, Leonard Slatkin had told her in prior conversations that he hoped to conduct her first symphony. Her plan for the work to be a dance suite evidences itself in the title of the symphony—*Ballet for Orchestra*—and the names of each movement—*On with the Dance*, *Till a Silence Fell*, *Waltz: Light Fantastic*, and *Where Time Plays the Fiddle*. As she wrote, the piece “evolved” into a work that was clearly a four movement symphony.²

McTee's construction of the symphony began when she rewrote an organ piece, that she had based on Penderecki's “*Agnus Dei*” from *The Polish Requiem*, for string orchestra. This

² Cindy McTee, interview by author, Denton, TX, October 13, 2006.

ultimately became the second movement of *Symphony No. 1: Ballet for Orchestra*.³ It is important to note that this movement was written separately from the others for two reasons. First, it is considered by the composer to be the creative origin of the symphony. Second, it is least like the other movements in pitch content and in character. Without this knowledge the second movement could seem to undermine the notion of octatonic structure because it makes less use of the octatonic collection than the other movements. However, many of the pitch relationships that are important to the themes and the harmonic organization do appear in the second movement. Despite the more diatonic relationships in the movement, it maintains the pitch relationships that are important to the other movements in structurally octatonic capacities.

In the interview, I inquired about Cindy McTee's view of the octatonic collection as it appears, not just in *Symphony No. 1: Ballet for Orchestra*, but in other compositions of hers as well. She said the following:

What I have always enjoyed about it [the octatonic collection] is that you can find structures like triads but you always have more chromatic structures pulling against those triads. The sonority has always appealed to me. You have these fantastic open sounds [here she played a triad on the piano] and then there is more dissonant chromaticism against it. It's the opposition of possibilities for chromatic elements and the triads. Also, when you use fewer than 12 notes you have the opportunity for transposition. With the eight notes you have three different forms of the scale. It is the symmetry that has always appealed to me....and here the conflict of symmetry and asymmetry.⁴

Obviously it was thrilling to hear the composer confirm that the juxtaposition of symmetry and asymmetry are important to her compositional vocabulary but it supports more than my

³ Ibid.

⁴ Cindy McTee, interview by author, Denton, TX, October 13, 2006.

conclusion about this specific work. It shows that the potential within the scale for symmetry and asymmetry is inherent to the construction of the scale and its employment.

As part of the interview, Cindy McTee provided organizational materials and sketches of the symphony and allowed me to copy them for use in my research. I refer to these materials here, as well as to the interview itself. Having these materials provided a wealth of important information that no amount of external research could have provided. These primary sources enriched the argument that I had already formed and allowed for a greater understanding of the genesis of the piece.

CHAPTER 2

A REVIEW OF THE OCTATONIC COLLECTIONS IN SCHOLARSHIP

Composed in 2002, Cindy McTee's 'Symphony No. 1: Ballet for Orchestra' was commissioned by the National Symphony Orchestra and premiered in the Kennedy Center in October of the same year. The piece is comprised of four movements, each with its own distinct character. The first and last movements are not only the most substantial, but also many of the motivic devices established in the first movement appear in the fourth movement. Much of the pitch content of the symphony is derived from the octatonic sonority. Of the three possible octatonic scales, seen in Example 2.1 below, Collection X is employed most frequently throughout the piece.

Example 2.1: Three of the six possible octatonic scales and the pitches excluded from each collection.⁵

The image displays three musical staves, each representing an octatonic collection. Each staff is divided into two sections: the first section contains the notes of the octatonic collection, and the second section contains the notes excluded from that collection. The notes are written on a five-line staff with a treble clef and a key signature of one sharp (F#).

- Octatonic Collection X:** The first section contains the notes C, Bb, Ab, G#, F#, E, D, C. The second section, labeled "Excluded from X", contains the notes D, C, B, Ab, G, F, E, D.
- Octatonic Collection Y:** The first section contains the notes C, Bb, Ab, G#, F#, E, D, C. The second section, labeled "Excluded from Y", contains the notes D, C, B, Ab, G, F, E, D.
- Octatonic Collection Z:** The first section contains the notes C, Bb, Ab, G#, F#, E, D, C. The second section, labeled "Excluded from Z", contains the notes D, C, B, Ab, G, F, E, D.

⁵ In this example, the pitches are ordered as they most commonly appear in McTee's *Symphony No. 1*. The collections are titled X, Y, and Z for the purposes of this paper. The collections are structured here according to Pieter van den Toorn's models with Collection X and Z resembling Model A and Collection Y resembling Model B.

When octatonic sonorities first appeared in music is a question answered differently by every scholar. Richard Taruskin provides examples of octatonic figures in the music of J.S. Bach, much earlier in history than many others.⁶ Allen Forte cites examples of octatonic materials in the writing of impressionistic composers Ravel and Debussy.⁷ By the mid-twentieth century, the octatonic scale and octatonic sonorities were audible in the works of many composers.

In scholarly research related to the octatonic collections, much debate ensues with regard to the octatonic materials and their relationship to functionally tonal repertoire. Octatonic passages appear in the work of Debussy, Messaien, Stravinsky, Mussourgsky, Rimsky-Korsakov and others. Conclusions about these passages are as varied as the works by the composers themselves. Despite the disagreement about when the sonority made its way into the composer's repertoire of musical ideas, the earliest writings regarding the scale are less difficult to trace. Rimsky-Korsakov refers to the octatonic scale in writings to his students. At this time, the scale was so common in Korsakov's writing and teaching that it was called the Korsakovian scale.⁸ Little is said regarding the use of the scale in these exchanges; however, it is a 'scale' in the minds of these composers, which means that these writings are important to our understanding of its development.

Next to write about the scale, and the first to do so in a more academic setting, is Olivier Messiaen. He includes the scale as the second of his 'Modes of Limited Transpositions' in his

⁶ Richard Taruskin, "Chernomer to Kaschei: Harmonic Sorcery; or Stravinsky's 'Angle'." *Journal of the American Musicological Society* 38, no.1 (1985): 96.

⁷ Allen Forte, "Debussy and the Octatonic," *Music Analysis* 10, no.1-2 (1991):125-169.

⁸ Richard Taruskin, "Chernomer to Kaschei: Harmonic Sorcery; or Stravinsky's 'Angle'." *Journal of the American Musicological Society* 38, no.1 (1985): 93.

book *Technique de mon langage musical*, published in Paris in 1956.⁹ The ‘Modes of Limited Transpositions’ are aptly named. They are scales that can be transposed only a few times before they begin to repeat. None of the first three modes are transposable more than three times. These modes provide, according to Messiaen, both melodic and harmonic content for his works.¹⁰ Of the second mode, later named the octatonic scale, Messiaen says “One already finds traces of it in *Sadko* by Rimsky-Korsakov; Scriabine uses it in a more conscious fashion; Ravel and Stravinsky have used it transiently. But all that remains in the state of timid sketch, the modal effect being more or less absorbed by classified sonorities.”¹¹ It is worth noting that Messiaen identifies the mode in the works of other composers, but he distinguishes their practices from his own based on the fact that they relate the mode to tonal contexts.

Messiaen sees the potential for the modes to be disconnected from tonality. “[The modes are ...] in the atmosphere of several tonalities at once, *without polytonalities*, the composer being free to give predominance to one of the tonalities or to leave the tonal impression unsettled.”¹² This refers to the possibilities inherent within the structure of the octatonic scale to be tonal or to be something else. While Messiaen is describing his own use of the scale, it is noteworthy that he distinguishes between his utilization of the scale as one with the potential to imply multiple tonalities or to disregard them as opposed to the usage of the scale by his colleagues which he described, as quoted earlier, to be related to tonal structures.

In 1963 Arthur Berger’s “Problems of Pitch Organization in Stravinsky” appeared in *Perspectives of New Music*. This article provides insight into thoughts regarding the octatonic

⁹ Olivier Messiaen, *Technique de mon langage musical* [The Technique of My Musical Language] Translated by John Scatterfield, [Paris: A. Leduc, 1956] 59.

¹⁰ Ibid, 58.

¹¹ Ibid, 59.

¹² Ibid, 64.

scale in its earliest identification as such. Berger's first conclusion is that a new theory needs to develop in order to explain works that are 'centric'.¹³ (Berger's concept of centric is that which resolves to a tonic but is not diatonic in structure.) Stravinsky's compositions are identified as centric works. Berger's writing is divided into four sections, the first of which explores the elements of Stravinsky's works that are diatonic. In the second section, Berger describes the octatonic scale and Stravinsky's use of the tritone in relation to this scale while the third section identifies the minor third relationships prevalent in Stravinsky's compositions that are also derived from the octatonic scale. In the fourth section he provides a synthesis of the tonal materials with the octatonic materials.¹⁴

Berger's observations about the octatonic scale are especially pertinent here. He describes the scale at length, noting its arrangement as successive whole and half steps. He then describes the various symmetries and transpositions available when using the octatonic scale, first pointing out the minor third relationships contained within the scale and then describing the tritone relationships. The octatonic scale is capable of transposition at any of the minor thirds or tritones contained within it, while maintaining absolute pitch content. Furthermore, each scale degree is a tritone away from another scale degree.¹⁵ This also means that all pitches in the collections are also related by minor third. This being said, Berger describes the octatonic scale as having four possible tonal centers in the following statement:

Within any given octatonic collection, by contrast, the first element of any of the partitions of the octave at 0, 3, 6, and 9 has the potentiality of being the pitch class of

¹³Arthur Berger, "Problems of Pitch Organization in Stravinsky," *Perspectives of New Music* 2 (1963): 11.

¹⁴Ibid, 12.

¹⁵Ibid, 20-23.

priority in an identical ordering referable to the same given octatonic collection, and this also holds true, analogously, for 1, 4, 7, and 10, with respect to a different ordering, of which more will be said later.¹⁶

The “ordering” refers to whether the first two pitches of the collection are related by half step (as seen in Collection X) or by whole step (as seen in Collection Y). All of these qualities are identified in various works by Stravinsky, specifically as they relate to the use of Octatonic Collection X.

Initially Berger points out that what Stravinsky identifies as polytonality can in fact be explained by the octatonic collection. This observation begins in Berger’s analysis of *Les Noces* and is then applied to the famous “Petrushka Chord.” In his explanation of the relationship between the octatonic scale and the “Petrushka Chord,” it becomes evident that while the chord was a commonly known and accepted entity amongst theorists the octatonic scale, given the length and degree of detail in Berger’s description, was not at all well known entity. It seems that despite Messiaen’s description of the scale and his attribution of the scale to other composers, others had not taken to describing the scale in the same way. Though composers were using octatonic materials, scholars had not yet taken much notice of the practice and apparently had written little about the construction and character of the octatonic collection.

In Berger’s conclusion, he synthesized his analysis of the diatonic materials with the octatonic materials from the first three sections of the article. He concludes that “semblance of tonality must be dealt with accordingly, both in light of our theoretical knowledge and in the light of interval relationships, whether of the basic cell, independent pitch-class formations, or

¹⁶ Arthur Berger, “Problems of Pitch Organization in Stravinsky,” *Perspectives of New Music* 2 (1963): 21.

the diatonic and symmetrical scales.”¹⁷ He concludes, therefore, that an explanation of Stravinsky’s techniques must include a discussion of both tonal *and* symmetrical materials. In fact these two sets of materials need not be seen as mutually exclusive. This idea reaches the heart of my own argument regarding McTee’s Symphony No. 1.

Next to describe the octatonic scale and its uses was Allen Forte in his 1973 publication *The Structure of Atonal Music*. Forte does not go into any lengthy description of the scale, merely labeling it *pc set 8-28* and identifying it within an excerpt from Stravinsky’s *Rite of Spring*.¹⁸ He also credits Berger with naming the scale “octatonic”, though he does not refer to it himself as the octatonic scale.

Discussions of Stravinsky’s use of the scale began to escalate with the publication of Pieter C. van den Toorn’s *The Music of Igor Stravinsky*. In his book van den Toorn speaks of Stravinsky’s use of the octatonic scale as “constructive or referential”¹⁹ across 50 years of his compositional output. Van den Toorn specifically refers to “The Firebird” and “Petroushka.” While he points out that Stravinsky made no real mention of the scale in regard to his own work, van den Toorn also writes that “it seems inconceivable that he could somehow have been unaware of the collection as a cohesive frame of reference, or of its very considerable role in his music as a constructive or referential factor.”²⁰ Because Stravinsky did not mention the scale, van den Toorn begins his discussion of the scale’s importance to Stravinsky’s work by distinguishing places within Stravinsky’s music where the use of the scale is “explicitly

¹⁷ Arthur Berger, “Problems of Pitch Organization in Stravinsky,” *Perspectives of New Music* 2 (1963): 42.

¹⁸ Allen Forte, *The Structure of Atonal Music* (New Haven and London: Yale University Press, 1973) 43.

¹⁹ Pieter C. van den Toorn, *The Music of Igor Stravinsky* (New Haven and London: Yale University Press, 1983) 32.

²⁰ *Ibid*, 42.

dependent that is, of substantial duration, relatively unimpaired by outside interference, with the collection complete or nearly so.”²¹ These standards suit Cindy McTee’s work well as much of her writing falls into this definition of explicit dependency quite easily.

Following this definition, van den Toorn provides two lists of passages from Stravinsky’s works. The first lists examples that are explicit by the definition provided above. The second list provides examples in which the octatonic collection is not the only source for pitch material. Van den Toorn points out that many of these sections oscillate between the octatonic and diatonic collections. He further reminds the reader that in order for these two collections to oscillate effectively, the composer has to focus on the things that the two collections do not have in common. This is an important distinction because it acknowledges that the octatonic scale has both similarities with and differences from the diatonic collection and that the two collections can be audibly distinguished from one another. Without this audible distinction, one could hardly suggest that it was possible to have octatonic structure.

Even more importantly, van den Toorn draws attention to the two possible structures of the scale and the inherent differences therein. The octatonic scale contains eight pitches that alternate half and whole steps. If the first step of the scale is a half step, as seen in Collections X and Z (in Example 2.1), a different partitioning results from that in the scale that begins with a whole step. While this may seem an obvious conclusion initially, a composer’s choice of one scale over the other changes the ways in which the octatonic collection relates to the diatonic collection. Collection Y (seen also in Example 2.1) begins on the same pitch as Collection X, but notice that the ways in which the scale can be utilized to imply diatonic relationships have shifted. Whereas the scale presented in Collection X creates both the major and minor triads

²¹ Pieter C. van den Toorn, *The Music of Igor Stravinsky* (New Haven and London: Yale University Press, 1983) 42.

(from the pitch C) and contains the perfect fifth leap from C to G, Collection Y creates the leading tone relationship and contains the perfect fourth leap.

In Cindy McTee's writing Collection X and Collection Y appear most often in the forms presented in Example 2.1. This is significant because it places an emphasis on the pitch C as opposed to the specific structure of the octatonic scale. Since the structure of the octatonic scale allows symmetrical as well as asymmetrical division of the octave, (depending on how the composer chooses to structure the scale in his or her writing) it can just as easily place emphasis on a pitch as divert emphasis from a given pitch. This is in line with the idea that structural octatonicism contains the potential for symmetry and asymmetry. Van den Toorn touches on this briefly when he says the following:

Were we to investigate from a diatonic perspective, we could credit the interpenetrating octatonic collection with systematically 'subverting' the C-scale with (0 3 4/3 4 7/3 6 7) 'impurity'; or, from an octatonic perspective, acknowledge the manner in which Model A [Collection X in Example 2.1] is modified by a neoclassical concern for C-scale conventions and tendency-tone inflections.²²

What van den Toorn sees as subversion or 'Neoclassical concern for C-scale conventions' may certainly be true of Stravinsky's writing but may also result from octatonic structure itself.

In 1985 Richard Taruskin published his article "Chernomor to Kashchei: Harmonic Sorcery; or, Stravinsky's "Angle." He begins by quoting Stravinsky: "I relate only from an angle to the German stem."²³ He sees this statement as supporting the octatonic interpretations of

²² Pieter C. van den Toorn, *The Music of Igor Stravinsky* (New Haven and London: Yale University Press, 1983) 71.

²³ Richard Taruskin, "Chernomor to Kaschei: Harmonic Sorcery; or Stravinsky's 'Angle'." *Journal of the American Musicological Society* 38, no.1 (1985): 72.

Stravinsky's work based on his interactions with his teacher Rimsky-Korsakov and his propensity for the use of third relationships. Taruskin observes that in scholarly writings about Stravinsky, Berger's 1963 article and van den Toorn's 1983 book are disregarded. Writers such as Forte and Straus do not address the significance of octatonicism to the music of Stravinsky. To support Berger and van den Toorn's notions of the octatonic scale as important and 'constructive' in Stravinsky's writing, Taruskin sets out to establish a relationship between the early history of the octatonic scale, particularly in the music of Rimsky-Korsakov and Stravinsky's compositions.²⁴

Taruskin traces the scale back to progressions that move in 'circles of thirds' as opposed to circles of fifths, citing early examples in Schubert's Symphony in C. Example 2.2 shows a progression from Symphony in C as it originally appeared in Taruskin's article, showing third progressions that create octatonic relationships. Both the Ab major and F# diminished chords act as pre-dominant, but the chords indicated as "X", according to Taruskin, only "function to divide the octave".²⁵ The Ab chord divides the octave by major third and the F# divides it by minor third (in this case two minor thirds). Because both the major and minor third are available to a composer utilizing the octatonic collection, Taruskin sees relationships, such as the one presented in Example 2.2, to be precursors of the octatonic collection (F#, Ab and C all being members of Collection Y). The resolution to G in this case obviously subverts octatonic relationships with diatonic relationships.

²⁴Richard Taruskin, "Chernomer to Kaschei: Harmonic Sorcery; or Stravinsky's 'Angle'." *Journal of the American Musicological Society* 38, no.1 (1985): 78.

²⁵ *Ibid*, 80.

Example 2.2: Schubert, *Symphony in C Major*, D 944, IV, mm. 1057-1105; as provided by Richard Taruskin.²⁶

Notice that in this particular example the pitches from the octatonic collection in the bass line place special emphasis on the relationship between G and C or dominant and tonic. This circle of thirds progression, named as such by Taruskin in his analysis of this example, protects the diatonic relationships by situating F# and Ab in relationship to G, but at the same time subverts these relationships by moving in a harmonic motion by thirds as opposed to fifths. The third motion evidences itself between the root position C chord that opens the example and the Ab chord that follows. The F# diminished chord (the fourth chord in the example) resolves traditionally (to G) in its first appearance, but is situated between two root position C sonorities in its second appearance. Taruskin views the Ab major and F# diminished sonorities in their relationship to the key of C as precursors to more explicit implementations of the octatonic collections. Even in its earliest developmental stages the octatonic collection was intermingled with diatonicism in a way that stretched the boundaries of functional tonality.

Taruskin finds further examples of octatonic melodies and progressions in the music of Beethoven,²⁷ Mozart, and even a Sarabande composed by Bach.²⁸ He sees more explicit

²⁶ Richard Taruskin, "Chernomer to Kaschei: Harmonic Sorcery; or Stravinsky's 'Angle'." *Journal of the American Musicological Society* 38, no.1 (1985): 80.

²⁷ *Ibid.*, 83.

references in works such as *Overture to Ruslan i Lyudimila* by Glinka²⁹ and *Ce qu'on entend sur la montagne* by Liszt.³⁰ He finds by far the most significant examples of the use of the octatonic collection are found in the works of Rimsky-Korsakov, so much so that the scale was referred to as the 'Korsokavian scale' by Russian composers of the time.³¹ Referring to octatonicism in the writings of Schubert, Liszt and others, Taruskin says the following:

But I would suggest that this octatonicism is of a fortuitous kind, a mere veneer decorating the surface of common practice. Most writers who have looked for the origins of octatonicism—whether in Stravinsky, in Messaien, or simply in general—have fastened on melodically embellished diminished and diminished-seventh chords of this type....As long as the diminished-seventh chord so embellished is eventually resolved by leading-tone progression, that is, in the conventional tonal way, the “octatonicism” is but a fleeting mirage. Real octatonicism preempts functions normally exercised by the circle of fifths, where by a rotation of thirds or more radically, by a tonally stable diminished harmony, of which more later.³²

This distinction made by Taruskin between embellishing diminished-seventh chords and “real octatonicism” is significant. Without explicitly using the word ‘structural’ or borrowing van den Toorn’s word ‘constructive,’ Taruskin is drawing a line between works that use the

²⁸ Richard Taruskin, “Chernomer to Kaschei: Harmonic Sorcery; or Stravinsky’s ‘Angle’.” *Journal of the American Musicological Society* 38, no.1 (1985): 95.

²⁹ Ibid, 87.

³⁰ Ibid, 91.

³¹ Ibid, 78.

³² Ibid, 96.

octatonic collection to augment diatonic structures and works that are based more fundamentally on the octatonic collection, particularly through third relationships.

Within works that demonstrate “real octatonicism” Taruskin identifies further subgroups significant with regard to McTee’s use of the collection. Taruskin distinguishes between “triadic octatonicism”³³ and “intervallic octatonicism”³⁴. According to Taruskin, triadic octatonicism occurs when a composer makes use of the octatonic collection’s potential to create vertical triads. In other words, the composer uses the octatonic scale as a basis for developing harmony, even harmony that is triadic. Intervallic octatonicism is melodic, and uses the scale to generate melodic material. Example 2.3 gives the melody provided by Taruskin.

Example 2.3: Rimsky-Korsakov, *Kashchei bessmertnyi*, Scene ii, (mm. 171-175).³⁵

The significance of this distinction is that it leaves room within “real octatonicism” for elements of traditional diatonic relationships. It clarifies that a work can contain triads that are

³³ Richard Taruskin, “Chernomer to Kaschei: Harmonic Sorcery; or Stravinsky’s ‘Angle’.” *Journal of the American Musicological Society* 38, no.1 (1985): 102.

³⁴ *Ibid.*, 120.

³⁵ *Ibid.*

members of the octatonic collection and do not function diatonically. Taruskin sees the third relationships that generate the scale as central to the distinction between diatonicism that relates to the octatonic collection and octatonicism that stands on its own. Taruskin ultimately concludes that Stravinsky, who studied with Rimsky-Korsakov, adopted the scale in a more significant way than as a “vener decorating the surface of common practice.”³⁶

In response to Taruskin’s article, van den Toorn writes “Taruskin’s Angle” stating that he thinks the original quote by Stravinsky—“I know too that I relate only from an angle to the German stem (Bach, Haydn, Mozart, Beethoven, Schubert, Brahms, Wagner, Mahler, Schoenberg) which evaluates largely in terms of where a thing comes from and where it is going. But an angle may be an advantage”³⁷—has nothing at all to do with octatonicism and everything to do with Stravinsky’s unique sound, or as van den Toorn says his “musical accent”.³⁸ He addresses Taruskin with the following:

Of course Taruskin knows fully well that to identify lengthy sections from the *The Rite of Spring*, *Les Noces*, *Symphony of Psalms*, and *Symphony in Three Movements* as octatonic or octatonic-diatonic is to make a determination at a relatively high level of abstraction, namely, at the level of the un-ordered pitch-class set, a ruling roughly equivalent to one describing Mozart’s Jupiter Symphony as primarily diatonic. But I suspect that he is equally aware that it is just this kind of referential determination that can guide the melodic and harmonic segmentation along a convincing path (one which would preserve the primacy of the triad) and from which one could descend the “ladder of abstraction” to

³⁶Richard Taruskin, “Chernomer to Kaschei: Harmonic Sorcery; or Stravinsky’s ‘Angle’.” *Journal of the American Musicological Society* 38, no.1 (1985): 95.

³⁷Pieter C. van den Toorn, “Taruskin’s Angle,” *In Theory Only* 10, no.3 (1987): 27.

³⁸ *Ibid*, 28.

these more immediate and determinate levels at which the peculiarity of individual pieces is to some extent ensured.³⁹

What is most clear from van den Toorn's assessment of Taruskin's approach is that while he does not believe Stravinsky's "angle" is octatonic, he does believe that Stravinsky's music is constructed—both abstractly and in its more obvious melodic and harmonic divisions—from the octatonic collections.

In the same issue of *In Theory Only*, Taruskin responds to van den Toorn's article. Primarily his concern is that it be understood that he sees Stravinsky's potential "octatonic heritage" as tracing the entire way back to the writings of Bach, Mozart, and Beethoven. He does not, however, believe it is practical to equate this heritage with that of Rimsky-Korsakov, which influenced him far more directly, particularly in the way Stravinsky makes use of the octatonic collections. He states the following about the purpose of his article:

The main contribution of my essay, in my opinion, lay in setting the emergent Stravinsky within a relevant context of common practice, which I demonstrated by setting his music alongside that of his teacher and his fellow pupils, by showing "octatonicism" was conceptualized, rationalized, and pedagogically imparted, and—most important of all—distinguishing the specific partitioning strategies that mark octatonicism à la Rimsky-Korsakov off from that, say, of Scriabin, and showing that it was precisely the former that conditioned the young Stravinsky's theoretical baggage and compositional routines.⁴⁰

While both van den Toorn and Taruskin write specifically about the music of Stravinsky, their arguments regarding his music are the first to establish a scholarly concept of octatonicism. This

³⁹ Pieter C. van den Toorn, "Taruskin's Angle," *In Theory Only* 10, no.3 (1987): 43-44.

⁴⁰ Richard Taruskin, "Forum," *In Theory Only* 10, no.3 (1987): 53.

concept is important in that it distinguishes between the uses of the scale as a device as opposed to the uses of the collection basic to the construction of the piece.

In his 1990 textbook *Introduction to Post-Tonal Theory*, Joseph Straus includes the octatonic collection among referential collections that often result in centricity. He points out that the symmetrical nature of the scale results from its alternation of half and whole-steps. This is in direct contrast to the diatonic scale, consisting mostly of whole-steps with two half-steps that create asymmetry. This is an important observation because it opens the door to understanding the relationship between the two scales do in fact have to one another. While Straus does not note that the octatonic scale has the potential to place the half-steps so as to create asymmetry or symmetry, depending upon where the composer chooses to place the emphasis.

Straus observes the “extreme symmetry” of the scale, which when disturbed, can result in conflicting centricities that are typically resolved in post-tonal works. He also points out that the ability of the octatonic scale to create triads allows it to interact with the diatonic collection and even to overlap or oscillate. The centricity of which Straus speaks is especially important and is in fact related to the ability of the scale to create triads or traditional diatonic relationships.⁴¹ It is this ability that provides that potential for the four tonal centers seen in the octatonic scale by Berger, van den Toorn and Straus. The fact that these tonal centers can exist at all indicates the potential of the octatonic scale for quasi-diatonic relationships. The fact that the octatonic scale generates four possible centers, however shows that it also has the potential for non-diatonic relationships. Straus is certainly astute in his observation that the symmetry of the scale creates this potential, but I would add that the potential for asymmetry is what singles out one of these

⁴¹Joseph Strauss, *Introduction to Post-Tonal Theory*, (Englewood Cliffs: Prentice-Hall, 1990): 97-101.

centers and that this asymmetry is just as natural to the octatonic collection as it is to the diatonic collection.

Allen Forte, in his article “Debussy and the Octatonic,” makes a different kind of distinction between usages of the octatonic collection. For Forte, the important distinction is made between ordered and unordered presentations of the octatonic collection. He identifies ordered presentations of the octatonic *scale* as “referential” as opposed to unordered presentations of the *collection* which are “contextual or harmonic.”⁴² It seems that Forte is really articulating the possibility for octatonic structure. I say this because when Forte defines ordered collections of the scale as “referential,” he is, in a sense, saying that the octatonic collection is audible. This audibility is at the surface level of the structure and identifiable because the pitches are in their ordered positions. When the octatonic collection is acting in a deeper structural way it produces harmonies or contexts more basic to the structure of the piece.

Forte makes another important point regarding the symmetrical properties of the octatonic scale. While he agrees that the collection is symmetrical when presented as a scale, he reminds readers that not all of the subsets of the octatonic scale are symmetrical and in fact, that the most commonly employed hexachord in Debussy’s work is the one that is *not* symmetrical. Previous scholarship focused on aspects of the scale that differentiate it from the diatonic collection, but here Forte points out that subsets of the octatonic collection can also be asymmetrical. Furthermore, he states that triads can exist completely within the octatonic context if they “offend norms of traditional progression.”⁴³

⁴² Allen Forte, “Debussy and the Octatonic,” *Music Analysis* 10, no.1-2 (1991):127.

⁴³ Allen Forte, “Debussy and the Octatonic,” *Music Analysis* 10, no.1-2 (1991):128.

Boulay seeks to distinguish between the types of octatonic passages based on whether the materials are decorative or structural.⁴⁴ While others, including van den Toorn, Taruskin, and even Forte, have hinted at this distinction (as mentioned above) Boulay is the first to overtly define the difference between the two types of octatonic usage. This distinction is compelling, particularly in considering the ideas of Richard Bass in “Models of Octatonicism and Whole-Tone Interaction: George Crumb and His Predecessors.” In this article, Bass points out that the “adaptability of either collection (whole tone and octatonic) as a deviant element in tonal writing derives principally from the large number of diatonic scale segments and traditional chordal sonorities it contains.” These relationships, between the diatonic scale set and the octatonic collection, are seen below in Example 2.4. This table was provided in Bass’s “Models of Octatonicism and Whole-Tone Interaction: George Crumb and His Predecessors.”

⁴⁴ Jean-Michel Boulay, “Octatonicism and Chromatic Harmony,” *Canadian University Music Review* 17, no.1 (1996): 41.

Example 2.4: Traditional sonorities as octatonic and whole-tone subsets.⁴⁵

Set Label	Prime Form	Familiar Name	Number of Occurrences in Octatonic Collection [0,1,3,4,6,7,9,10]
3-8	[0,2,6]	V7(5 th omitted)	4
3-10	[0,3,6]	° triad	8
3-11	[0,3,7]	M triad/m triad	8
4-25	[0,2,6,8]	Fr+6	2
4-26	[0,3,5,8]	mm7	4
4-27	[0,2,5,8]	V7 or ø7	8
4-28	[0,3,6,9]	°7	2

Much of the research on the octatonic collection relates to compositional practices of the late 19th and earlier 20th centuries. Van den Toorn, Taruskin, and others often refer to the octatonic collection as ‘referential.’⁴⁶ This term places the octatonic collection in the context of tonality, even if the purpose is to suggest that functional tonality (in its essence) is thwarted by the presence of the octatonic collection. I would like to assert that the octatonic materials in ‘Symphony No. 1’ function structurally as opposed to referentially. The octatonic collection is central to the construction of the melodic motives, harmonies, and overall form of the piece. This is supported first by the pitch content of the symphony which is derived primarily from the octatonic collections. With rare exception, each collection sounds only with other members of

⁴⁵ Richard Bass, “Models of Octatonic and Whole-tone Interaction: George Crumb and his predecessors.” *Journal of Music Theory* 38/2 (1994): 158.

⁴⁶ Pieter C. van den Toorn, *The Music of Igor Stravinsky* (New Haven and London: Yale University Press, 1983) 32.

the same collection, creating audible shifts between the Collections X, Y, and Z and giving each its own aural significance. Even the exceptions to the use of one particular octatonic collection are often significant to a shift from one collection to another. For example, note the passage in Example 2.5, shown below.

Example 2.5: McTee, *Symphony No. 1: Ballet for Orchestra, Introduction: On With the Dance* mm. 25-32.⁴⁷

The image shows a musical score for four string parts: Violin I, Violin II, Viola, and Cello. The score covers measures 25 through 33. Measures 25-32 are marked with a 3/4 time signature and contain an octatonic scale. Measure 33 is marked with a 2/4 time signature and contains a single B natural note. The notes in measures 25-32 are: G#4, A4, B4, C#5, D5, E5, F#5, G#5. The B natural in measure 33 is B4.

Notice that all of the pitch material in measures 25-32 is derived from Collection X, but the final note of measure 33 is a B natural which is not a member of the aforementioned collection. This note functions as the beginning of a transition to new motivic material.

The structural makeup of the octatonic scale allows the composer to refer to functional tonality. As demonstrated above in Example 2.5, the octatonic scale contains many intervallic relationships characteristic also of the traditional diatonic scale and has therefore been easily

⁴⁷ Cindy McTee, “Symphony No. 1: Ballet for Orchestra.” Score, 2002, Willis Library, University of North Texas, Denton, mm. 25-33. This reduction includes only the four string parts because the other instruments sounding double the given voices.

incorporated into recent chromatic tonal music. While these relationships are undeniable, I assert that the relationship between the scales may also result in misunderstanding seemingly tonal materials as structurally significant in a piece comprised primarily of octatonic materials.

How can the distinction be made? The diatonic scale is based on an inherent lack of symmetry between the division of the octave- that being the tonic to dominant relationship. What is interesting about the octatonic scale is that it has both the capacity for the exploitation of an asymmetrical division of the octave or a symmetrical division of the octave. Example 2.5, shown above, shows two different interpretations of a motive found in Symphony No. 1, one that shows the relationship between G and C as the more significant and another that shows the relationship between F# and C as more significant. The point is that either is possible. It is innately true of this octatonic scale that dominant seventh and fully diminished sonorities are possible but that the leading tone sound is absent, and that the octave can be divided symmetrically or asymmetrically. A piece that contains octatonic materials, but structures them in so that they behave as they would in a functionally tonal piece should not be considered structurally octatonic. This piece, while it contains triadic melodic ideas and triadic harmonies also uses other possibilities generated from the octatonic collection. The materials seen in Table 1- dominant seventh chords, fully diminished chords, major and minor triads- appear within the piece but do not function in so as to contribute to the larger structural scheme of the symphony as a whole. Rather, they are derived from the possible subsets of the octatonic collection. It is for this reason that I assert that the piece is structurally octatonic and that the motivic content, harmonic materials, and formal structure of the piece should be considered in light of the structural capabilities of the octatonic collection.

this is accomplished through rhythmic placement and repetition. There are pitch relationships that have diatonic implications—both measures one and two outline diminished triads and in measure three F# resolves up to G, much like a leading tone. These diatonic implications do not, however, define the structure of the example. The diatonic elements exist alongside the symmetrical divisions of the octave.

Example 3.1(b): Octatonic melodic fragment.⁴⁹



These two examples also illustrate the second principle of what structural octatonicism is not. Just as pitch content is not the only determinant of octatonic structure, the absence of tonal implications does not indicate octatonicism either. It may seem that the presence of diatonic sonorities indicates that the octatonic scale can not be the primary sonority, but in reality, the opposite is true. The octatonic scale is structured, as demonstrated in earlier sections of this document, so as to have the potential for both dissonant and consonant sounds, for both symmetrical and asymmetrical division of the octave, for both tonal implications and the deliberate avoidance of tonal implication. Therefore, the juxtaposition of sonorities that imply a diatonic structure against asymmetrical materials makes use of the full potential of the octatonic materials.

Therefore, a melodic idea or ideas that demonstrate both symmetry and asymmetry are completely characteristic of the octatonic scale. This is the first trait that defines octatonic structure. Melodic ideas that demonstrate this property of juxtaposition can be said to be

⁴⁹ Melody composed by the author for the purposes of this argument.

contains both consonance and dissonance. It implies a key- the key of C- but also leans away from such an implication by sounding the Eb and the E (or in this case-Fb) in close proximity therefore breaking down the aural perception of the major or minor triad. It is both and therefore it is neither.

One could argue, in regard to this example, that the Fb is a non-harmonic tone and that the most significant relationship in this opening motive is the minor third relationship between the C and Eb. The accent marking and rhythmic placement make the Fb sound, in context, as though it is part of the harmonic structure. This is not the only support for this argument, however. In Movement Four, the opening motive reverses this Fb/Eb relationship providing, in a sense, a resolution to this split-third triad from Movement One. This relationship is examined in more detail in the discussion regarding the opening motive of Movement Four.

At this point, having addressed a definition of structural octatonicism, the argument can progress into a discussion of the melodic materials of the symphony. Structural octatonicism is not determined by pitch materials alone. It is not nullified by the presence of tonal implications. It is made up of the juxtaposition of symmetry and asymmetry both across thematic ideas in movements and in the interval content of the themes themselves.

A discussion of the themes in McTee's *Symphony No. 1: Ballet for Orchestra* must begin with a brief inspection of the opening melodic idea from *Agnus Dei*, a six-part choral selection from Penderecki's *Polish Requiem*. It is important to begin at this point for two reasons. First, the composer used the Penderecki theme to structure the second movement of her piece. Second, the argument will begin here because I later found that the composer sees the whole work as being generated from the second movement.⁵¹ She states that the third relationships seen

⁵¹ Cindy McTee, interview by author, Denton, TX, October 13, 2006.

throughout the second movement are what connect it in pitch content to the rest of the symphony.⁵²

Penderecki's *Agnus Dei* begins with the short melodic idea seen in Example 3.3.

Example 3.3: Penderecki, *The Polish Requiem*, *Agnus Dei*, m. 1.⁵³



Note that the pitches are composed from the natural F minor scale, with only the Bb omitted. Since these pitches are not contained in a single octatonic scale and the composer identifies this theme as generative of the movement that acts as basis for the rest of the work, the theory that the piece has an octatonic structure would seem to be immediately disproved. On closer inspection, however, the exclusion of the Bb from the theme is an important one. The first three pitches, Ab, G, and F are in Collection Z, while the last three pitches, Eb, Db, and C are in Collection X. Although this has little relevance to the Penderecki piece it is definitely significant in McTee's movement because of the way in which she divides the theme and how she uses the theme to structure the movement as a whole.

McTee divides the *Agnus Dei* theme into two segments, leaving out the portion of the melody that begins on C and states 'Agnus Dei'. Example 3.4 shows the partial theme which is extracted from measures three through six of Penderecki's melody. One appearance of the divided melody would seem insignificant; however, McTee divides the melody this way through

⁵² Ibid.

⁵³ Cindy McTee, "Symphony No. 1: Ballet for Orchestra," Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

five subsequent repetitions. This melodic fragment creates audible sections; it is a purposeful division of this motive into two parts.

In sketch materials provided later by the composer she states the following as being the most important goals of the second movement: “Gradual unfolding of the Penderecki theme” and “Shift between tonality and atonality- sometimes horizontal other times vertical (simultaneous).”⁵⁴ The first statement makes it clear that the Penderecki theme was divided purposefully into these two parts, with the complete statement of the melodic idea held in reserve. The second statement reveals the intended relationship between tonality and atonality in this movement. They are to stand side by side both in the melodic or horizontal structures and in the harmonic or vertical structures.

In the same sketches, the composer also identifies the following elements as important to the movement: “Octatonic Structures (pitch symmetry): Agnus Dei, 0134 melodic materials.” Following this statement she divides the piece into three sections, measures 1 through 85, 86 through 184, and 185 to the end. The first section is labeled as “chromatic with tonal moments,” the second as “tonal with chromatic moments,” and the third as “chromatic and tonal simultaneously.”⁵⁵

Below the statement of the partial Penderecki theme is a countermelody that appears first in the cello part. This countermelody is seen in Example 3.4. Many pitches in this cello countermelody come from octatonic Collection X, with the exception of the Ab that occurs throughout and the F in measure 11 that concludes that descent from Db. There is an obvious relationship to the diatonic collection in both the opening melody and this countermelody. All of

⁵⁴ Sketches, from the composer’s personal collection.

⁵⁵ Ibid.

the pitches in the viola part playing the partial Agnus Dei theme are from the F minor scale, and both phrases finish with a sense of repose on the pitch F. References to the key of F are present in the piece and particularly in this movement, and cannot be questioned. The question is whether these references support an octatonic structure.

Example 3.4: McTee, *Symphony No. 1: Ballet for Orchestra*, Adagio: Till a Silence Fell.⁵⁶

The image shows a musical score for two staves. The top staff is a viola part in 3/4 time, with measures 3 through 10. Measures 3 and 4 are rests. Measure 5 starts with a half note Bb, followed by a quarter note D, and a dotted quarter note F. Measure 6 has a quarter note G, a quarter note Ab, and a quarter note Bb. Measure 7 is a whole note F. Measure 8 has a quarter note G, a quarter note Ab, and a quarter note Bb. Measure 9 has a quarter note C, a quarter note Db, and a quarter note Eb. Measure 10 has a quarter note F, a quarter note G, and a quarter note Ab. The bottom staff is a tenor countermelody in 3/4 time, with measures 3 through 10. Measure 3 has a half note Bb, followed by a quarter note D, and a quarter note F. Measure 4 has a quarter note G, a quarter note Ab, and a quarter note Bb. Measure 5 has a quarter note C, a quarter note Db, and a quarter note Eb. Measure 6 has a quarter note F, a quarter note G, and a quarter note Ab. Measure 7 has a quarter note Bb, a quarter note C, and a quarter note Db. Measure 8 has a quarter note Eb, a quarter note F, and a quarter note G. Measure 9 has a quarter note Ab, a quarter note Bb, and a quarter note C. Measure 10 has a quarter note Db, a quarter note Eb, and a quarter note F. The top staff is labeled 'Partial Pederecki Theme' and 'New material'. The bottom staff is labeled 'Tenor Countermelody'.

Because the pitch content of this movement is less dependant upon the octatonic collection than in the other movements, it would seem simplest to understand the diatonic relationships as structurally most significant, at least in this movement. While the diatonic relationships cannot be ignored, the way in which the octatonic materials are situated is significant in light of the other movements, especially since this movement was composed first and served as a point of departure for the other movements.⁵⁷ The tenor countermelody demonstrates important pitch relationships that appear throughout *Symphony No. 1: Ballet for Orchestra*. The C and Db in this countermelody are paired in a similar way in other movements, most often with another half-step pair, G/F#. Also, the pitch C receives emphasis in other movements and is situated here as the dominant to F. These relationships are discussed in detail

⁵⁶Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

⁵⁷ Cindy McTee, interview by author, Denton, TX, October 13, 2006.

in Chapter 2. That this countermelody would resolve to F is not surprising, as the original Penderecki melody with which it is paired, is in the key of F minor. This resolution, however, occurs less conspicuously in other themes.

In Example 3.5, the theme provided acts eventually as an ostinato of sorts in the first movement. Collection X is central to the construction of this theme, and not just to its pitch content.

Example 3.5: McTee, *Symphony No. 1: Ballet for Orchestra*, Introduction: On With the Dance, mm. 204-207.⁵⁸

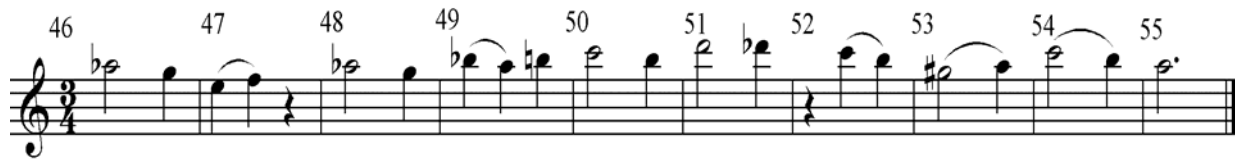


This is evidenced in several ways. First, the theme opens with a leap of a minor ninth, from C to Bb, followed by a leap of a tritone, from Bb to E. The theme descends to C again but via Bb (as opposed to the D natural one might expect if listening for diatonic emphasis on the pitch C). The short melodic fragment that closes the theme makes an octave leap on the pitch G and then continues through A# to B natural to C, which begins a new statement of the theme with an elision. The effect of this theme in relationship to octatonic structure is different from that of the Agnus Dei countermelody.

Another second movement theme is heard first in measure 46 and is repeated several times throughout as shown in Example 3.6.

⁵⁸ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

Example 3.6: McTee, *Symphony No. 1: Ballet for Orchestra Adagio: Till a Silence Fell* mm. 46-55.⁵⁹



This theme serves as a bridge between the diatonic properties of the Penderecki theme and the octatonic relationships that the composer noted as important to the piece.⁶⁰ This theme links the asymmetrical to the symmetrical division of the octave, a relationship significant to the piece as a whole. The first four pitches of the theme, given in Example 3.6, suggest F minor. These first four notes are essentially the opening of the Penderecki melody with an added E natural. While these two opening measures of the theme have a close relationship to F minor, when the theme continues in measure 48, one notes that all of the pitches with the exception of C natural are taken from Collection Z. As the theme continues, it becomes increasingly chromatic—due to the addition of the C natural to Collection Z. As the chromaticism increases, the sense of F minor is lost. In this way, C serves as an exception to the octatonic collection allowing this theme to juxtapose the diatonic sounds of the Penderecki theme with symmetrical, octatonic sounds. This is accomplished by placing the C, a dominant pitch to the key of F minor, among the other pitches that dissolve the F minor relationships.

Movement Two continues with another theme, first heard in measure 77. This theme is highly chromatic in nature, particularly in light of its harmonization. In Example 3.7, notice the

⁵⁹ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

⁶⁰ Sketches, from the composers personal collection.

pitch content is mostly comprised of pitches from Collection X with the exception of a D natural and an F natural in measure 82 and F natural and Ab in measure 84.

Example 3.7: McTee, *Symphony No. 1: Ballet for Orchestra Adagio: Till a Silence Fell* mm. 77-85.⁶¹



Unlike the tenor countermelody, where F natural sounds like the tonic, and is therefore preeminent over the octatonic relationships, this F natural is buried inside an octatonic structure. The first four measures of this theme climb from F# to C and contain only pitches from Collection X. This tritone climb is followed by a highly chromatic line containing all the pitches between C and the Bb above it. While measures 81 through 83 are more strictly chromatic, the octatonic collections are not completely lost. Note that the line climbs from Db to A. Until measure 84, the pitches move to A with emphasis on pitches from Collection X. The Db in measure 81, followed by the Eb in measure 82, then the E in measure 83, are all from Collection X. Certainly, these relationships would not be heard as easily as the half step chromatic relationships created by the ascent, but it is important to note that even the chromatic relationships maintain an octatonic structure in their organization.

While Movement Two served as a starting point for the composer, and therefore for my argument, Movement One is the first experience for the listener and establishes the importance of

⁶¹ Cindy McTee, "Symphony No. 1: Ballet for Orchestra," Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

the octatonic from the beginning. The opening motive, seen in Example 3.2, has already been discussed briefly, but it is important to note further that this initial theme, the opening idea, is transposed in measure 18 up a minor third. This illustrates Berger’s notion that the scale has inherent minor third relationships, as this theme, once transposed, maintains pitch content from only Collection X.⁶² The original theme and its transposition are seen in Example 3.8. This also recalls McTee’s statement that the minor third relationships important part in the second movement are what connect the piece as a whole.⁶³

Example 3.8: McTee, *Symphony No. 1: Ballet for Orchestra* Introduction: On With the Dance opening theme and transposition of theme.⁶⁴

Original Opening Theme

Transposition

After the movement opens with a unison statement of the theme seen in Example 3.2 and again in Example 3.8, it continues with the transposition in the violins and rhythmic figures in the lower strings. In measure 76 these rhythmic figures are joined by the low brass melody given in Example 3.9. This melody begins with pitches from Collection X and shifts to pitches from Collection Z in measure 96. This shift is made smoothly through the use of E natural—a pitch

⁶² Arthur Berger, “Problems of Pitch Organization in Stravinsky,” *Perspectives of New Music* 2 (1963): 20-23.

⁶³ Cindy McTee, interview by author, Denton, TX, October 13, 2006.

⁶⁴ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

that occurs in both collections—in measure 95. It is particularly important as it happens both melodically and harmonically, effecting an audible shift between the two octatonic collections.

Example 3.9: McTee, *Symphony No. 1: Ballet for Orchestra, Introduction: On With the Dance*, mm. 76-101.⁶⁵

The image shows a musical score for a single melodic line in treble clef. The first staff covers measures 76 through 89. A dashed line labeled "Collection X" spans from measure 76 to measure 94. The second staff covers measures 92 through 101. A dashed line labeled "Collection Z" spans from measure 95 to measure 101. The music consists of a single melodic line with various note values and accidentals.

Another example of an audible shift, similar to the one heard in the brass melody, occurs first in measures 111 through 114 and shown in Example 3.10. Notice that measure 111 and measure 112 are comprised of pitches from Collection Z while measure 113 and measure 114 contain only pitches from Collection Y. These scalar patterns are repeated in a number of places throughout the movement. Presenting the octatonic collection as a melodic scale in this way strengthens the listener’s perception of less obvious octatonic relationships.

⁶⁵ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

Example 3.10: McTee, *Symphony No. 1: Ballet for Orchestra*, Introduction: On With the Dance, mm. 111-114.⁶⁶

Beginning in measure 121, McTee introduces two different twelve-tone melodies in the bass voice (as shown in Example 3.11).

Example 3.11: McTee, *Symphony No. 1: Ballet for Orchestra*, Introduction: On With the Dance, mm. 121-125.⁶⁷

These melodic presentations of the aggregate provide another example of melodic material that is not comprised entirely of octatonic pitches but nonetheless based on octatonic structural principles. Notice that the first row (starting on C) begins and ends with a tritone leap. This symmetry is balanced by the resolution of the final note of the first row to the first note of the second row—another C. This balance between symmetry and asymmetry is seen in the second row especially. Notice that the middle two pitches of the row are G and Gb where the melodic pattern shifts. The G has an obvious diatonic relationship with the C, while the Gb subverts that

⁶⁶ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

⁶⁷ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score. Incidentally, each of the two rows can be divided into hexachords that are related to one another. Measure 121 contains shows the first hexachord of the first row. The hexachord in measure 122 is the retrograde inversion of the first hexachord. The second row (measures 123 through 125) has hexachords that are transpositions of one another at the tritone.

relationship. Both pitches are important to Collection X and the structure of the piece as a whole. Furthermore, the composer's sketches indicate that the second row was created based on (014) and the relationship between it and its inversion.⁶⁸ These relationships are especially significant to the structure of the octatonic scale. The opening motive, seen in Example 3.2, is also comprised of (014) relationships. This is important because the twelve-tone row is the first true departure from octatonic pitch content in this opening movement. Despite its inclusion of other pitches, it is still structured according to the octatonic scale and specifically the octatonic scale's implementation in the opening measures of this piece.

Measures 164 through 175 introduce a second brass melody as seen in Example 3.12. Once again all the pitches of the melody are taken from Collection X.

Example 3.12: McTee, *Symphony No. 1: Ballet for Orchestra*, Introduction: On With the Dance, mm. 164-175.⁶⁹



The first short section of the theme descends from G to E while the second section (beginning in measure 170 ascends an octave from E. Aside from the Bb that occurs in measure 164 and measure 171, the theme contains only notes from E minor. If the two appearances of Bb were excluded one could sing this theme in E with relative ease, though it would still be quite chromatic. This is significant because this theme displays the potential of the octatonic collection

⁶⁸ Sketches, from the composer's personal collection.

⁶⁹ Cindy McTee, "Symphony No. 1: Ballet for Orchestra," Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

for juxtaposing diatonic and non-diatonic relationships. The presence of the Bb alone makes this theme distinctly octatonic because it adds a symmetrical division of the octave from E to E, even though the D# leading tone and final descent from A to E otherwise indicate E minor. It is the positioning of these elements side by side—the diatonic and the non-diatonic relationships—that makes this theme significant to the structure of the piece as a whole.

These themes from Movement One reveal an emphasis on Collection X that is continued in Movement Three. This is seen particularly in Example 3.13, which displays the violin melody.

Example 3.13: McTee, *Symphony No. 1: Ballet for Orchestra*, Waltz: Light Fantastic, mm. 50-56.⁷⁰



Like the second brass melody from Movement One, this theme exploits the octatonic collection's potential for both diatonic and non-diatonic relationships. Notice that the theme opens with an Eb triad but ends on F#. Taken together, these pitches contain both the Eb major and minor triads (0347). The (014) subset established in the opening motive and reiterated in the construction of the twelve-tone row, is seen here in an expanded form.

Movement Four begins with another (014) theme taken from Collection X that is seen in Example 3.14. This motive then expands to (0134) in measure 11.

⁷⁰ Cindy McTee, "Symphony No. 1: Ballet for Orchestra," Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

Example 3.14: McTee, *Symphony No. 1: Ballet for Orchestra*, Finale: Where Time Plays the Fiddle, mm. 1-11.⁷¹



Like the opening melodic idea in Movement One, this theme is played by the violins with no harmonic support. It eventually becomes one of several rhythmic figures, also in a similar fashion to the opening motive of Movement One. This theme is punctuated by paired tritones also seen in Example 3.14. Notice that the highest sounding pitch to open the movement is C. The following violin notes display, yet again, the tension between symmetry and asymmetry, as the theme contains both a repeated G and an F#. Furthermore, the violin line recalls the relationships seen in the violin melody from Movement Three—an Eb sounding alongside both G and Gb. This opening statement is much like the opening of the symphony. Earlier in this chapter, I noted that Movement One's opening theme contained E and Eb as split thirds above C. Here, in measure 11, these two pitches are reversed with the D# (Eb in the Movement One) now moving up to E natural. In this occurrence the (014) is between the pitches D#, E and G which relates not only to the first movement but to the split-third chord in Movement Three that is built from Eb. This makes it clear that while some diatonic relationships are in place (between the pitches C and G and in the split triads), those relationships exist inside an octatonic structure.

⁷¹ Cindy McTee, "Symphony No. 1: Ballet for Orchestra," Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

Example 3.15: McTee, *Symphony No. 1: Ballet for Orchestra*, Finale: Where Time Plays the Fiddle, mm. 68-81.⁷²



Measure 68 introduces another brass melody seen in Example 3.15. This melody also begins with a (0134) statement. This melodic fragment is then expanded to include all of the other octatonic pitches with the exception of A in measures 74 through 79. This melody shows in a small way the octatonic relationships of the whole piece, beginning with the (0134) statement and continuing to melodic materials containing a more complete collection. The (0134) motive is the smallest collection of consecutive pitches from the scale wherein the octatonic sound is apparent. In other words, (0134) acts as a recognizable subset of the octatonic collection. This subset introduces several of the themes in the symphony, as previously discussed. From this subset, McTee is able to present all of the octatonic materials as a complete collection.

It is important to note the relationship between (0134) and (0147), as both have been discussed here. These two sets have the same internal intervals (for example, 0 and 3 from the first set have the same intervallic difference as 4 and 7 in the second set.) Furthermore (014), which is a defining set for many of themes discussed, is a strong subset of both (0134) and (0147). In fact, (014) is such a strong subset of (0147) that it occurs both inversionally and transpositionally. This symmetry is an obvious strength of the octatonic collection and as such is employed in the thematic structure of the symphony.

⁷²Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

This concludes the discussion regarding melodic or horizontal elements of McTee's *Symphony No. 1: Ballet for Orchestra*. While not all of the themes focus exclusively on Collection X or contain pitch materials derived solely from one or more of the octatonic collections, the themes are united across the symphony as structurally octatonic. Some of them, as presented earlier in this argument, contain pitch content that is primarily octatonic with one pitch that acts as an exception. Other themes open with the (014) or (0134) pitch sets and then continue to present more of the octatonic collection. All of the themes exhibit structural octatonicism by presented diatonic materials juxtaposed against symmetrical structures both of which originate in the octatonic collection.

CHAPTER 4

HARMONY AND STRUCTURE

In Richard Taruskin's article "Chernomer to Kaschei: Harmonic Sorcery; or 'Stravinsky's Angle,'" he states "Harmony is as harmony does" in reference to Rimsky-Korsakov's indecision about how to label a chord without seeing its resolution.⁷³ This view of harmony is critical, as context is the key to understanding the horizontal structures of a piece. Harmony and large-scale structure are intrinsically related because harmony is best understood in a larger context. This chapter explores the harmonic support in *Symphony No. 1: Ballet for Orchestra* as it relates to and informs the large-scale structure of the piece. As seen in the themes from the symphony, the harmonies demonstrate both symmetrical and asymmetrical division of the octave thereby making use of the potential contained within the octatonic collection to create or subvert diatonic relationships.

Two different pitch relationships drive the harmonic organization of the symphony as a whole. The first is the relationship between two tritone or half step pairs—G and Db, F# and C. These four pitches constitute nearly all of the structurally significant bass notes in the symphony. The second, and most important structure, is between the prominence of the pitch C and its secondary relationship to the pitch F. After investigating these relationships, the paper will conclude with an analysis of the large-scale structural relationships that tie together the thematic materials discussed in the previous chapter with the harmonic organization discussed in this chapter.

⁷³ Richard Taruskin, "Chernomer to Kaschei: Harmonic Sorcery; or Stravinsky's 'Angle'." *Journal of the American Musicological Society* 38, no.1 (1985): 98.

The half-step paired tritones (G and Db, F# and C) appear frequently throughout *Symphony No. 1: Ballet for Orchestra*. The G and Db pair first appears in the bass line of Movement One in measure 48 as seen in Example 4.1.

Example 4.1: McTee, *Symphony No. 1: Ballet for Orchestra*, Introduction: On With the Dance, mm. 48-60.⁷⁴

The image displays a musical score for measures 48 through 60 of the Introduction: On With the Dance from McTee's Symphony No. 1. The score is arranged in four staves: Violin I, Violin II, Cello, and Double Bass. The key signature is one flat (B-flat major/D minor), and the time signature is 3/4. The music features a prominent bass line in the Double Bass part, which consists of a sequence of chords and single notes that support the melodic fragments in the upper voices. The Violin I and II parts play a rhythmic pattern of eighth notes, while the Cello part plays a similar pattern. The Double Bass part is characterized by a series of chords and single notes, including the G and Db pair mentioned in the text.

This bass line continues through measure 109 and reappears in measure 279 continuing to measure 315. Notice that the bass line supports short melodic fragments in the upper voices taken completely from Collection X. In measure 76, a Collection X brass melody (seen in Example 3.9 from the previous chapter) enters and is supported by the strings continuing with the material seen in Example 4.1. Notice that in measure 48, Db and G are in unison with the

⁷⁴ Cindy McTee, "Symphony No. 1: Ballet for Orchestra," Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

upper voice but in measure 50 Db sounds in the bass with G in the upper voice and by measure 58 Db sounds with C in the highest upper voice and G sounds with F# in the highest upper voice. This is the first appearance of the half-step tritone pairs.

What is significant about this pairing of tritones is the way in which they are used to support and also to subvert diatonic relationships. These four pitches have the potential for a number of relationships both diatonic and otherwise. If the G, for example, resolves to C there is an obvious diatonic relationship between the two pitches. If the C is paired instead with Db there is a more chromatic relationship whereas if it is paired with F# there is a symmetrical relationship between the pitches. McTee employs both the symmetrical and asymmetrical potential relationships in *Symphony No. 1: Ballet for Orchestra*.

After the reiteration of the opening motive in measure 110, the twelve-tone series discussed in Chapter 3 appear in the bass line as a support for a polyphonic texture. Because of the polyphonic nature of this section, an in depth discussion of the harmonic relationships would be redundant as they consist almost entirely of the (014) relationships that comprise the construction of the series. (These series were shown in Example 3.11) Following this polyphonic section, the piece continues into a slower, more exposed section that features mainly the strings and harp.

Example 4.2 shows a reduction of measure 208 through measure 220. This melody was seen previously in Example 3.5 but is shown here with the accompanying harp part.

Example 4.2: McTee, *Symphony No. 1: Ballet for Orchestra*, Introduction: On With the Dance, mm. 208-220.⁷⁵

The image displays a page of a musical score for the introduction of the first movement of Cindy McTee's Symphony No. 1. The score is arranged in two systems of staves. The first system includes staves for Woodwinds, Trumpet in C, Harp I, Violin I, Violin II, Viola, and Double Bass. The second system includes staves for WW (Woodwinds), C Trpt (Trumpet in C), Bb 1 (Bassoon 1), Vin I (Violin I), Vin II (Violin II), Vln (Viola), and D.B. (Double Bass). The measures are numbered from 208 to 220. The music is written in a key signature of one flat (B-flat major or D minor) and a 4/4 time signature. The notation includes various rhythmic values, accidentals, and dynamic markings.

⁷⁵Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

Notice that, like the Db and G bass line seen in Example 4.1, the first two measures contain predominantly consonant relationships between the pitches. The C in the bass supports a C in the harp part, the Db and Bb in the bass support a Bb in the harp part.

The pitch A in the harp part sounds above an entering E natural, and the G in the harp part above an Eb in the bass but also sounding with an F# in the first violin. By measure 210 the C in the bass sounds with a G, an F#, and an A in the other voices. Once again McTee begins with consonant sounds and continues into more chromatic and dissonant combinations of pitches. Also notice that at times there are enharmonic triads—see beat one measure 209, beat two of measure 212, and beat three of measure 213 sounds a dominant sonority—that stand alongside more chromatic relationships like the first beat of measure 216 or measure 218. Here again we see the juxtaposition of the diatonic with the non-diatonic.

As mentioned in the Introduction to this paper, the pitch relationships that are important to the piece (such as the paired tritones) are present in Movement Two, but in more subtle ways. The relationship between Db and C is maintained very strongly in this movement. Taken out of the context of *Symphony No. 1: Ballet for Orchestra*, this relationship could be seen to be a result of the F minor diatonic relationships that occur throughout the movement. Taken in the larger context of the symphony, however, the F minor relationships in the movement create octatonic relationships, such as the C and Db relationship discussed here, which exist as an important part of the octatonic structure. This having been said, the harmonic relationships in this movement will be discussed in the context of the piece as a whole.

Movement Two begins on the pitch C, just as the first movement begins. This C is sustained in the bass through measure 13. Each phrase after measure 13 begins on C until measure 36 when an F in the bass descends to Db. This Db is then sustained through measure 53.

The movement ends on a root position Db triad interrupted by an E and a C in the upper voices. With the exception of C, all of the other pitches in this final “chord” are contained in Collection Z, which of the three octatonic collections has the closest relationship to F minor sonorities. The final chord of Movement Two in the context of the movement alone sounds like a tainted resolution to the flat-sixth scale degree of F minor. In the context of the symphony as a whole, however, it is the pitches from Collection Z, with the addition of C to maintain the Db and C relationship, which is so significant to the other movements.

While Db and C are seen in relation to one another throughout the whole of Movement Two, G and F# are also present. Example 4.3 shows measures 62 through 68.

Example 4.3: McTee, *Symphony No. 1: Ballet for Orchestra Adagio: Till a Silence Fell* mm.

62-68.⁷⁶

The image shows a musical score for three instruments: Violin, Viola, and Contrabass. The score covers measures 62 through 68. The key signature is one flat (Bb) and the time signature is 3/4. Measure 62 begins with a G in the bass and a G# in the violin. Measure 63 shows a Gb in the bass and a G# in the violin. Measure 64 has a Gb in the bass and a G# in the violin. Measure 65 has a Gb in the bass and a G# in the violin. Measure 66 has a Gb in the bass and a G# in the violin. Measure 67 has a Gb in the bass and a G# in the violin. Measure 68 has a Gb in the bass and a G# in the violin.

These measures mark the beginning of the middle section of the movement. Notice that the example opens with a G in the bass that immediately moves to a Gb while the highest voice reverses this motion. The same motion is repeated, with the other half-step tritone pair in measure 66. Notice also that the bass line resolves much like Example 4.1, from G through Db to

⁷⁶ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

C. Not all of the pitches in these measures are taken from the octatonic collection. While this is true, the half-step paired tritones significantly support the pitch relationships from the other movements.

These half-step paired tritones are, in fact, so important to Movement Three that the F# and G pair appears in the bass line in nearly every measure of the movement. Like other examples, the pitches have a diatonic relationship. Example 4.4 shows measures eight through ten of Movement Three.

Example 4.4: McTee, *Symphony No. 1: Ballet for Orchestra Waltz: Light Fantastic*, mm. 8-10.⁷⁷

The image shows a musical score for three instruments: Harp, Cello, and Contrabass, covering measures 8, 9, and 10. The Harp part is in the upper staff, with measures 8 and 9 containing rests and measure 10 containing a whole rest. The Cello and Contrabass parts are in the lower staves. In measure 8, the Cello plays a quarter rest followed by a quarter note F# (marked with a sharp sign). The Contrabass plays a quarter note F# followed by a quarter rest. In measure 9, the Cello plays a quarter rest followed by a quarter note G (marked with a sharp sign). The Contrabass plays a quarter note G followed by a quarter rest. In measure 10, the Cello plays a whole rest. The Contrabass plays a quarter note G followed by a quarter rest. The time signature is 3/4.

Notice that the F# moves up to G, as though it is resolving. As no other pitches are sounding when this motion is first heard, this half-step motion does, in fact, sound like a leading tone resolution. Beat three of measure eight undermines this diatonic relationship, however, when both pitches are sounded simultaneously.

⁷⁷ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

In measure 50 (seen in Example 4.5) the split third triad on Eb in the violin part, mentioned in Chapter 3 and seen in Example 3.13, appears above the F# and G pair.

Example 4.5. McTee, *Symphony No. 1: Ballet for Orchestra Waltz: Light Fantastic*, mm. 50-56.⁷⁸

The image shows a musical score for three instruments: Violin, Cello, and Contrabass, spanning measures 50 to 56. The Violin part is in treble clef with a 3/4 time signature. It features a melodic line starting in measure 50 with a triplet of eighth notes (G4, A4, B4) and a dotted quarter note (C5). In measure 51, it continues with a triplet of eighth notes (B4, A4, G4) and a dotted quarter note (F#4). Measures 52 and 53 are mostly rests, with some notes in measure 53. Measure 54 shows a half-step motion from G4 to F#4. Measures 55 and 56 continue the melodic line with a triplet of eighth notes (F#4, G4, A4) and a dotted quarter note (B4). The Cello and Contrabass parts are in bass clef with a 3/4 time signature. The Cello part consists of a steady accompaniment of dotted quarter notes (G2, F#2, G2, F#2) in pairs. The Contrabass part consists of a steady accompaniment of dotted quarter notes (C2, B1, C2, B1) in pairs.

This motive, in measures 53 to 54 is the first appearance of the C/ Db half-step motion in this movement. This occurrence of the G and F# (or Gb) pair is especially important as the (0347) that is seen in so many of the themes (discussed in the previous chapter) is now presented so as to share absolute pitch content with one of the half-step pairs that comprise much of the harmonic organization of the piece.

In the final movement of the symphony, the half-step tritone pairs are the first notes to sound. Example 4.6 shows measures one through eleven of Movement Four.

⁷⁸ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

Example 4.6: McTee, *Symphony No. 1: Ballet for Orchestra*, Finale: Where Time Plays the Fiddle, mm. 1-11.⁷⁹

The image shows a musical score for four instruments: Violin I, Violin II, Viola, and Violoncello. The score is in 2/4 time and covers measures 1 through 11. The Violin I part features a melodic line with a prominent F#/G pair in the upper voice. The Violin II, Viola, and Violoncello parts provide harmonic support, with the Viola and Violoncello parts featuring a split third triad. The score is numbered 1 through 11 at the top.

Notice that the pairs sound together and are followed by the (014) motive in the first violins that was discussed in Chapter 3. Once again, the F#/G pair is not only in the harmonic support, but also reversed in the motive in the upper voice. The fact that the F#/G pair appears in many of the (014) themes shows the deeper relationship that the pair has to the harmonic organization of the symphony as a whole.

It is also important to note that these pairs have an important relationship to Collection X. These particular pitches, especially when paired with the split third triads as seen in the previous two examples, make use of the potential that the collection has to promote symmetry or asymmetry. The split third triad also makes use of this potential. When paired together F# and G act as a connection between the harmonic structure and the melodic content as well as between the diatonic implications in the piece and the symmetrical divisions found in the more chromatic or atonal materials. Taken together all of this is characteristically octatonic.

⁷⁹ Ibid.

Example 4.7: McTee, *Symphony No. 1: Ballet for Orchestra*, Finale: *Where Time Plays the Fiddle*, mm. 21-22.⁸⁰

The image shows a musical score for four instruments: Bassoon 1, Bassoon 2, Violin, and Cello. The music is in 2/4 time. The Bassoon 1 and Bassoon 2 parts are in the bass clef. The Violin part is in the treble clef, and the Cello part is in the bass clef. The score shows two measures, 21 and 22. In measure 21, the Bassoon 1 part has a melodic line starting on B2, moving to C3, D3, and E3. The Bassoon 2 part has a chord of F#2, C3, G2, and D3. The Violin part has a chord of F#2, C3, G2, and D3. The Cello part has a chord of F#2, C3, G2, and D3. In measure 22, the Bassoon 1 part has a melodic line starting on B2, moving to C3, D3, and E3. The Bassoon 2 part has a chord of F#2, C3, G2, and D3. The Violin part has a chord of F#2, C3, G2, and D3. The Cello part has a chord of F#2, C3, G2, and D3.

Another interesting occurrence of the tritone pairs is seen in Example 4.7. Here, Collection X is used to create two different dominant seventh sonorities a tritone apart—one built from C and the other from F#. The only note from the collection missing in this arrangement is the pitch A, and the only repeated note is E. These cascading dominant seventh chords sound both above and below the (014) opening motive. In the bass voice the chord is extended to include G (the minor ninth). This deepens the relationship that the half-step pair has to the (014) melody in the violins as it includes both members of the F#/G pair. Furthermore, using the dominant seventh and ninth sonorities is another example of the potential of the octatonic collection to create diatonic sonorities which, in this example, are audible but do not function as they would be expected to in a diatonic environment. Much like the F#/G pair, which was seen in Movement Three to have leading tone motion that was interrupted by sounding of the pitches simultaneously, these dominant sonorities have a relationship to diatonicism. They do not, however, behave that way as they are situated alongside chromatic materials. Instead of

⁸⁰ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

resolving to F, the C dominant sonority moves to an F# dominant sonority, exposing the tritone relationship heard elsewhere throughout the piece.

The half-step tritone pairs appear frequently in *Symphony No. 1: Ballet for Orchestra*, often providing harmonic support for the (014) melodic material and marking important structural divisions throughout the piece. The pairs make the importance of Collection X more apparent to the harmonic support of the symphony as well. This connection is important as it is also significant to the other important pitch relationship in the piece—the relationship between C and F. This relationship is far more complicated as it is not simply about the two pitches but about the issue of emphasis or centrality that is so often debated in regards to octatonic materials.

Berger reminds us that each octatonic collection contains four different potential “centers.”⁸¹ As discussed in Chapter 2, Berger defines centrality as an emphasis on a pitch that is not created from diatonic relationships. Berger writes in reference to Stravinsky’s music which is often discussed in regards to pitch centrality. Van den Toorn also discusses centrality in reference to Stravinsky’s music and refers to it as “the assertion of one pitch class over another.”⁸² Such an assertion is accomplished, according to van den Toorn, through the following means: “contextual articulation (persistence, octave reinforcement, metric accentuation, influence of surrounding material etc...), C-scale (or major-scale) tonally functional relations being unavailable to these octatonic partitioning elements, ‘potential priorities’, or ‘accented tones.’”

While van den Toorn’s description of “pitch assertion” also accurately describes McTee’s methods of asserting a pitch when not using diatonic implications, she also employs diatonic

⁸¹ Arthur Berger, “Problems of Pitch Organization in Stravinsky,” *Perspectives of New Music* 2 (1963): 20-23.

⁸² Pieter C. van den Toorn, *The Music of Igor Stravinsky* (New Haven and London: Yale University Press, 1983) 52.

emphasis to pitches, particularly F and C, in *Symphony No. 1: Ballet for Orchestra*. This does not, however, undermine octatonic structure. As previously discussed the diatonic elements that stand alongside the other methods of “pitch assertion” make her work sound structurally octatonic. As both non-diatonic and diatonic emphasis are placed on the pitches C and F, it is important to understand that these approaches work together to create octatonic structure.

Symphony No. 1: Ballet for Orchestra begins on C, which sounds continuously in the bass for the first fifteen measures of Movement One. This C supports the opening motive discussed earlier and seen in Example 4.8.

Example 4.8: McTee, *Symphony No. 1: Ballet for Orchestra*, Introduction: On With the Dance, mm. 1-12.⁸³

The musical score for Example 4.8 consists of two systems of staves. The first system covers measures 1 through 6, and the second system covers measures 7 through 12. The top staff is for Violin and the bottom staff is for Contrabass. The time signature is 3/4. The key signature has one flat (B-flat). The Contrabass part features a continuous, low C bass line throughout all 12 measures. The Violin part begins in measure 2 with a series of notes: G4, F4, E4, D4, C4. In measure 7, the Violins play a similar motif, but with accents and slurs. The score is labeled 'Full Orchestra' for measures 1-6 and 'Violins Only' for measures 7-12.

The first 33 measures of the piece contain only pitches from Collection X. As discussed earlier the opening motive continues until measure 18 where it is transposed up a minor third. In measure 30, the whole orchestra rings out a unison statement of the opening minor third from C

⁸³ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

to Eb. On the last statement of this minor third opening (seen in Example 4.9), the motive moves to a B natural instead of concluding on C, as all of the previous statements have concluded.

Example 4.9: McTee, *Symphony No. 1: Ballet for Orchestra, Introduction: On With the Dance*, mm. 30-33.⁸⁴

But the pitch B natural is not a part of Collection X, and after 33 measures of only pitches from Collection X, it is an audible exception to the prior pitch content. The resolution to B evokes a diatonic implication, sounding almost like a half cadence. In this example, it is the exception to the octatonic collection that strengthens the significance of the pitch C. It is also important to note that the pitches in this cadence, in measure 33, are also from the set (014). Because this cadence uses the same set as the opening motive and many of the other themes, the relationships between the themes are clearer, despite this pitch exception to Collection X.

After the full orchestral sound on the opening motive, the pitch B is the only pitch to continue sounding (in the Bass part) until measure 37 when it is passed on to the contrabassoon. This plays a transitional motive (seen in Example 4.10) that contains pitch content from Collection X and Collection Z.

⁸⁴ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

Example 4.10: McTee, *Symphony No. 1: Ballet for Orchestra* Introduction: On With the Dance, mm. 37-47.⁸⁵

The image shows a musical score for the Contrabassoon part, measures 37 through 44. The music is written on a single staff in bass clef with a 3/4 time signature. The key signature has one flat (B-flat). The notes are: 37: G2, A2, Bb2, C3; 38: C3, D3, Eb3, F3; 39: F3, G3, Ab3, Bb3; 40: Bb3, C4, D4, Eb4; 41: Eb4, F4, G4, Ab4; 42: Ab4, Bb4, C5, D5; 43: D5, C5, Bb4, Ab4; 44: Ab4, G4, F4, Eb4. There are slurs and accents throughout the passage.

The combination of these two collections is especially interesting because Collection Z is the only collection of the three that does not contain the pitch C, while Collection X is the only of the three that does not contain B. Furthermore, Collection Z contains the B fully diminished chord that is absent from Collection X. In other words, if a composer wanted to emphasize diatonic relationships between octatonic collections, while supporting the importance of the pitch C, the combination of Collection X and Collection Z is the best way to accomplish this.

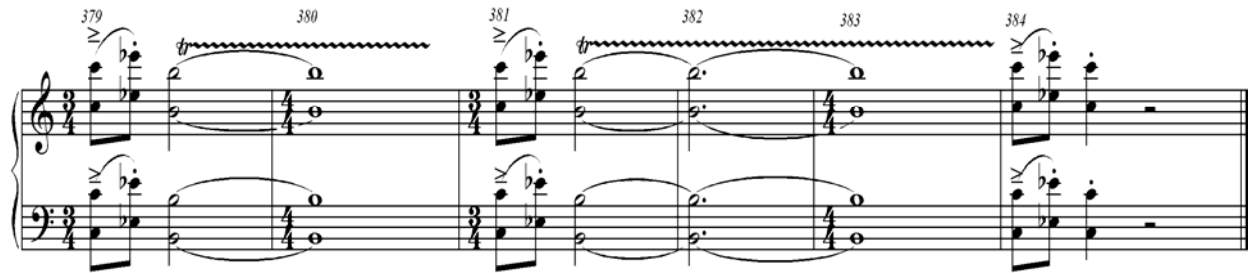
This transition motive is followed by the Db and G bass line discussed earlier in this chapter and seen in Example 4.1. Because this transition is harmonically interesting, the start of this motive is included with the contrabassoon transition motive in Example 4.10. In measures 43 and 44 the minor third motive with the ending resolution down a half step (originally seen in measure 33 on the pitch B) reappears in the strings but is now transposed so as to sound only pitches from Collection X. In fact, the final note that sounds, in this reiteration of the minor third motive, is the pitch C. The transition motive, using the relationship between Collection X and Collection Z, resolves the sounding of the pitch B in measure 33 into the larger octatonic framework of Collection X.

⁸⁵ Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

The next section of Movement One begins with the two twelve-tone series, originally seen in Example 3.11. It is especially important to notice that both rows, although of very different internal construction, begin on C and end on Db, emphasizing the half-step relationship that is seen elsewhere in the symphony. In the bass, the twelve-tone row continues to measure 162 where it transitions into a very similar motion in the bass that is not based on the twelve-tone melody, but instead contains pitches from Collection X. This transition in the bass is followed by the brass melody pictured in Example 3.9, also comprised solely of pitches from Collection X. At measure 182, this smoother theme, now sounded by the woodwinds, shifts into Collection Z. Introduced in the transition melody, discussed earlier, the relationship between Collection X and Collection Z returns now in a more prolonged setting. This shift between the two collections is audible. Collection X is so significant to the pitch content of the first 181 measures of this piece that a shift to a different collection, and especially to the collection that does not contain the pitch C, is now an audible transposition. This is important because it not only supports the notion that the pitch C is important to the piece, but also supports the idea that the octatonic collections are a significant constructive entity to the symphony. If the collections could not stand on their own, without diatonic structure, these shifts between the collections would be less audible, and far less effective.

Following this Collection Z theme, the basses introduce the bass ostinato theme, seen in Example 3.5 and Example 4.2. Notice that this motive, following the shift to Collection Z, begins on the pitch C and contains only pitches from Collection X. This section is followed by a restatement of the opening material from the symphony. Movement One ends with a resounding of the minor third motive from the beginning of the piece, seen in Example 4.11. Notice that this sounding of the motive resolves the original motion to B natural now back to C.

Example 4.11: McTee, *Symphony No. 1: Ballet for Orchestra*, Introduction: On With the Dance, mm. 379-384.⁸⁶



After examining the larger formal structure of Movement One, a few things should be clear. First, the pitch C is present in a significant way at the beginning of every new theme, and thereby every formal division, in the first movement. It supports the minor third motive that opens the symphony, acts as the resolution of the B natural in measure 46, and is the first pitch of the twelve-tone row and the bass ostinato figure. The end of the symphony resolves the B natural up to C, using diatonic support alongside the continued repetition and significant structural placement to make C very evidently significant. Second, one should observe that not only C is important to the structure, but with it, Collection X. Throughout the first movement, pitch materials from the other two collections occur but always sound inside the thematic structure and never at the beginning or end of formal divisions. It is Collection X that defines this first movement in both the foreground and background of Movement One.

At the end of Movement One a sustained C continues into the opening measures of Movement Two. In Movement Two this C, firmly established with Collection X in Movement One, now serves as a dominant to the F minor Penderecki melody discussed previously. The zenith of this movement occurs when the Penderecki theme sounds in its totality. See this statement in Example 4.12.

⁸⁶ Cindy McTee, "Symphony No. 1: Ballet for Orchestra," Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

Example 4.12: McTee, *Symphony No. 1: Ballet for Orchestra*, Adagio: Till a Silence Fell, mm. 155-163.⁸⁷

The image displays a musical score for six instruments: Violin I, Violin II 1, Violin II 2, Viola 1, Viola 2, and Violoncello. The score covers measures 155 through 163. The key signature is one flat (B-flat major or F minor), and the time signature is 3/4. The music is in a slow, adagio tempo. The Violin I part features a melodic line with a trill in measure 159. The Violin II parts play a more rhythmic, accompanimental role. The Viola parts provide harmonic support with sustained notes and moving lines. The Violoncello part is primarily in the lower register, with a notable shift in pitch from F to Db in the bass line towards the end of the passage.

This moment was so significant to the composer that she wrote the words from the Penderecki theme (*Agnus Dei*) above the violin part to indicate that this is the first full statement of the theme. This statement of the theme concludes with an F minor seventh chord. What is most interesting harmonically about this movement is what happens after the complete statement of the theme. As the theme dies away dynamically, the pitch F (which was approached from Db in the bass in Example 4.12) now moves down to Db in the bass and remains there until the end of the movement. This is significant because Db has a relationship to both F minor, and also to McTee's implementation of Collection X in *Symphony No. 1: Ballet for Orchestra*. As

⁸⁷Cindy McTee, "Symphony No. 1: Ballet for Orchestra," Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

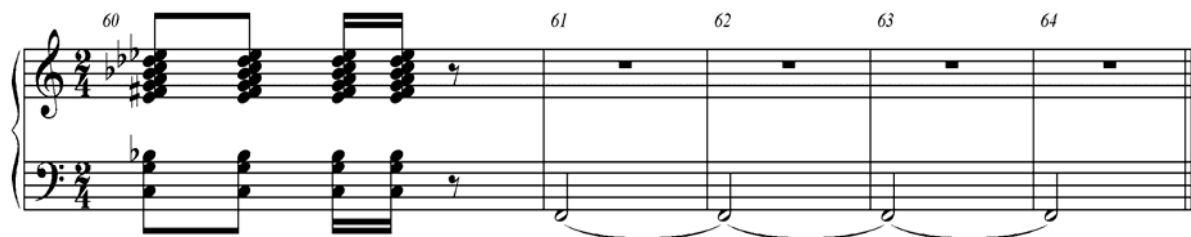
mentioned earlier, it is a member of one of the half-step tritone pairs and often interrupts the motion of G to C.

As the Db in Movement Two dies away, Movement Three begins with the motion from F# to G (seen in Example 4.4). It is important to note here that all three pitches come from Collection X and are members of the half-step tritone pairs. Even more interesting is that the Db that concludes Movement Two has a dominant relationship with the F# (Gb) that opens Movement Three. This F# does not sound alone however, but moves to G and continues to do so in every measure of this movement. This is an excellent example of the juxtaposition of the diatonic capabilities of the collection (the dominant relationship between Db and Gb/F#) and the symmetrical division of the octave (the tritone relationship between Db and G). Even more interesting is that the pitch C is noticeably absent. All other members of the half-step tritone pairs are present in this transition from the slow movement to the waltz.

It could be asserted that C is absent in this section because the G and F# pair are acting as a sustained quasi-dominant sonority. In more traditional classical symphonies, the dominant builds tension to heighten the return to the tonic at the end of the symphony. This resounding G/F# pair does exactly this. The pitch G has an obvious diatonic relationship to C. It is unlikely that this relationship is unintentional. What makes this G and C dominant relationship part of the octatonic structure, however, is that it is paired with the F#. It is, in fact, the F# that is the lingering pitch at the end of the movement. While the F# moves up to G throughout all of Movement Three (discussed previously as having a leading tone relationship), in the end it is the F# that remains to introduce the half-step tritone pairs that open Movement Four. Once again, the half-step tritone pairs juxtapose the symmetrical and asymmetrical.

As discussed previously (and seen in Example 3.14), Movement Four begins with the (014) motive. This opening section concludes, much like the opening of Movement One, with a full orchestra chord, seen in Example 4.13, which is made up of pitches from Collection X and has the pitch C in the bass.

Example 4.13: McTee, *Symphony No. 1: Ballet for Orchestra, Finale: Where Time Plays the Fiddle*, mm. 60-61.⁸⁸



Also as in Movement One, the full orchestral sound is followed by a thinned-out bass sonority that is an exception to Collection X. In Movement One this exception was the pitch B. In Movement Four this exception is the pitch F; however, in these measures it sounds with an F# in the contrabassoon. The F exception here and the B exception from Movement One have an obvious relationship. They are in similar locations structurally and they are both exceptions to Collection X. This F, much like the B, serves as diatonic support for the pitch C but also has a relationship to Movement Two. It is a significant exception and, like the B from Movement One, it reiterates the octatonicism as an audible exception.

At the end of this section, the twelve-tone series (beginning on C) that was first heard in the first movement reappears here in Movement Four in measure 183. While it is important to

⁸⁸Cindy McTee, “Symphony No. 1: Ballet for Orchestra,” Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

note its appearance, its harmonic and melodic implications have already been discussed previously. The twelve-tone row is followed by another bass line ostinato that accompanies a more lyrical motive, all containing pitches from Collection X and seen in Example 4.14. Notice that the half-step tritone pairs are seen again in this ostinato and that the theme begins on the pitch C. In this ostinato, the other half-step pairs available within Collection X (D#/E, and A/Bb) also appear. All of the pairs appear as members of step-wise bass motion. The C/Db, F#/G, and A/Bb pairs also appear in large leaps. Exhibiting the other pairs in the bass line in this way shows the potential within the octatonic scale to create the pairs and also a more intentional emphasis on the C/Db and F#/G pair that reoccur elsewhere in the symphony.

Example 4.14 also reveals an interesting interval relationship. The opening of the motive, in measure 175, contains the pitches C, Db, and Bb which form the set (013). Earlier motives have been demonstrated to emphasize the set (014) and also its expansion to the set (0134). Here the subset (013) is presented, tying together this bass line, also seen in Example 3.5 in the bass ostinato from Movement One.

In measure 219, Collection Z appears for the last time (seen in Example 4.15). Notice that the Collection Z motive is supported by a Bb that is a member of both Collection Z and Collection X. As in Movement One, Collection Z serves as a transitional sonority between important formal divisions. This theme is followed by a coda, which resounds material taken directly from Movement One.

Example 4.14: McTee, *Symphony No. 1: Ballet for Orchestra*, Finale: Where Time Plays the Fiddle, mm. 175-181.⁸⁹

The image displays a musical score for measures 175 through 181. The score is arranged in two systems. The first system covers measures 175-178, and the second system covers measures 179-181. The instruments are Piano (Piano), Violin (Violin), Cello (Cello), Contrabass (Contrabass), and Pno. (Piano). The score includes various musical notations such as treble and bass clefs, time signatures, notes, rests, and triplets. Measure numbers are indicated above the staves. The Piano part features complex rhythmic patterns and triplets. The Violin and Cello parts have long, sustained notes with some triplets. The Contrabass part has a steady, rhythmic accompaniment. The Pno. part has a complex, rhythmic accompaniment with many triplets.

⁸⁹ Cindy McTee, "Symphony No. 1: Ballet for Orchestra," Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

Example 4.15: McTee, *Symphony No. 1: Ballet for Orchestra*, Finale: Where Time Plays the Fiddle, mm. 219-228.⁹⁰



Symphony No. 1: Ballet for Orchestra ends as it begins, with the minor third motive, this time resolving the B natural up to C in the closing measures. The full orchestra rings out the final minor third, finishing on C. Once again the B natural provides diatonic support for the pitch C, but does not overshadow the octatonic structure, which by the end of the four movements is so clear.

At this point, it is important to address McTee's implementation of the octatonic collections, not just as transpositions but as specific pitch sets. In other words, the collections employed in the piece are chosen specifically for pitch emphasis and not because of construction. It is for this reason that Collection X and Collection Z appear so frequently alongside one another, as seen in Example 4.9 (where the opening motive resolves down to B natural) and Example 4.10 (the transition motive from the B natural to the new melodic material). Here, it is the pitches C and B natural that are important to the composer's construction and not the potential transpositions of the octatonic scale. Collection X is employed most frequently because the constructive elements, such as the half-step tritone pairs, are contained within that specific collection in such a way as to allow the composer to emphasize the pitch C. Furthermore, in

⁹⁰ Cindy McTee, "Symphony No. 1: Ballet for Orchestra," Score, 2002, Willis Library, University of North Texas, Denton. Material presented here is a reduction of the score.

Example 4.9, Collection Z is chosen specifically for its emphasis on the pitch B. It is the pitch content of the collections that drive their utilization in *Symphony No. 1: Ballet for Orchestra*.

What is more interesting is that Collection Y is employed least within the symphony. Collection Y, which contains the pitch C as well as its leading tone B and the pitch D, which provides the whole step scale motion not available in Collection X. Considering the emphasis placed on the pitch C, it is the choice of Collection X over Collection Y that gives the symphony a characteristically octatonic sound. Collection X allows for symmetrical and asymmetrical division of the octave from the pitch C, while Collection Y does not have this potential in the same way. While C and F are both contained within Collection Y, the composer does not use it to create the connection between the second movement and the rest of the piece as this would have undermined the emphasis on the pitch C through Collection X, and octatonic structure. Had the composer employed the scale in this way, it would have been a more referential implementation. Instead, the audible shifts that occur between Collection X and Collection Z (as seen in Examples 4.9 and 4.10) add to the octatonic structure of the symphony as a whole.

Melodic materials in McTee's *Symphony No. 1: Ballet for Orchestra* are supported by the harmonic structure in such a way as to promote the octatonic collection as the primary constructive force for the structure of the symphony. While diatonic implications can be seen in the themes and in the structure, these implications do not undermine the octatonic elements because they are derived from the potential within the collections to create asymmetrical division of the octave, imply leading tone motion, and create triads. What makes the octatonic scale significant is its ability to allow for symmetry as well. A composer need not make use of both the potential for asymmetrical and symmetrical division of the octave, however, when a composer

chooses to use this potential, the result is characteristically or structurally octatonic. This is certainly the case for McTee's *Symphony No. 1: Ballet for Orchestra*.

BIBLIOGRAPHY

- Bass, Richard "Models of Octatonic and Whole-tone Interaction: George Crumb and his predecessors." *Journal of Music Theory* 38/2 (1994): 155-186.
- Berger, Arthur. "Problems of Pitch Organization in Stravinsky." *Perspectives of New Music* 2 (1963): 11-42.
- Boulay, Jean-Michel. "Octatonicism and Chromatic Harmony." *Canadian University Music Review* 17/1 (1996): 40-56.
- Cohn, Richard. "Bartok's Octatonic Strategies: A motivic approach." *Journal of the American Musicological Society* 44/2 (1991): 262-300.
- Forte, Allen. "Debussy and the Octatonic." *Music Analysis* 10/1-2 (1991):125-169.
- _____. *The Structure of Atonal Music*. New Haven and London: Yale University Press, 1973.
- Koozin, Timothy. "Octatonicism in recent solo piano works of Toru Takemitsu." *Perspectives of New Music* 29/1 (1991): 124-141.
- McTee, Cindy. Symphony No. 1: Ballet for Orchestra. Score, 2002, Willis Library, University of North Texas, Denton.
- _____. "Cindy McTee Composer" <<http://www.cindymctee.com/index.html>>
- _____. Interview by author, October 13, 2006.
- _____. Sketches from the composer's personal collection, provided October 13, 2006.
- Messiaen, Olivier. *Technique de mon langage musical*. (The Technique of My Musical Language) Translated by John Scatterfield. Paris: A. Leduc, 1956.
- Straus, Joseph. *Introduction to Post-Tonal Theory*. Englewood Cliffs: Prentice-Hall, 1990.
- Taruskin, Richard. "Chernomer to Kaschei: Harmonic Sorcery; or Stravinsky's 'Angle'." *Journal of the American Musicological Society*. 38 no.1 (1985): 72-142.
- Taruskin, Richard. "Forum." *In Theory Only* 10 no.3 (1987): 47-57.
- van den Toorn, Pieter C. "Taruskin's Angle." *In Theory Only* 10 no.3 (1987): 27-46.
- _____. *The Music of Igor Stravinsky*. New Haven and London: Yale University Press, 1983.