

AN ANALYSIS OF ALFRED DESENCLOS'S
QUATUOR POUR SAXOPHONES, I

by

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INTRODUCTION

The purpose of this research project is to provide performers with a detailed analysis of the first movement of Alfred Desenclos's *Quatuor pour Saxophones* (1964). The following analysis will illustrate the intricacies of its structure and organization, which will enhance the performance of the movement by making performers aware of how the movement is organized. Performers can strive toward a more informed and authoritative interpretation by knowing the structurally important musical elements of the movement. Studies such as this are necessary because it is difficult to find a detailed analysis of works for the saxophone or a saxophone quartet.

This document contains a description of the composer's life; the history of the piece; and analyses of the form, melodic organization, pitch organization, texture, and rhythmic features of the movement. The analytical results of this study will be applied to elements of performance to serve as a guide for rehearsals and performances of this movement.

Desenclos was a meticulous composer who used twentieth-century compositional techniques while still employing some traditional musical elements. This piece is not tonal because it does not have a traditional key area or tonal center. Desenclos does, however, include some traditional harmonic progressions, bass motion, and chords. He organized the musical material in this movement by the repetition of intervallic content, themes, motives and rhythms. The following chapters expound the structural musical elements of this compelling movement.

This study is designed to assist performers, but also to promote Desenclos's music. He was an accomplished composer who held a prominent teaching position in France, yet there is little about Desenclos's life or his compositions in scholarly literature. This is surprising because his saxophone pieces are frequently performed and recorded.

CHAPTER 1 Background

Alfred Desenclos was born in Portel, France on July 2, 1912. He entered the Conservatory in Roubaix, France in 1929 as a piano student. Several years later, in 1942, he won the Prix de Rome. He was a Professor of Fugue at the Paris Conservatory in 1942, and became the director of the Conservatory at Roubaix in 1943. Desenclos published two works for saxophone: *Prelude, Cadence et Finale* (1956), which is a chamber piece for alto saxophone and piano, and the *Quatuor pour Saxophones* (1964). Desenclos only published fourteen compositions, but he did compose film scores that were not credited to him. He died in Paris, France on March 31, 1971.

In reference to French music in the early twentieth-century, Jonathan Goldman states that, “change in musical mores was ushered in by three formative personalities, all born around the year 1910: Olivier Messiaen, Rene Leibowitz and Pierre Schaeffer.”¹ These three influential composers were born near the same year as Desenclos, and their music—alongside other contemporaries like Francis Poulenc, Darius Milhaud, Arthur Honneger, and Pierre Boulez—provides an overview of musical trends in twentieth-century France. After analyzing the first movement of the *Quatuor*, it appears that Desenclos was influenced by his contemporaries and many of the musical trends of the mid-twentieth century.

After World War II, Western art was changing, and composers were reacting against their cultural heritage. Many French composers, such as Messiaen and Boulez, were interested in creating new music that was distinct from the music of the past. Messiaen began to apply his own rigorous methods for organizing pitch, such as his modes of limited transposition, and

¹Jonathan Goldman, “Cultural and Generational querelles in the musical domain: music from the Second World War,” *The Cambridge Companion to French Music*, ed. Simon Trezise (Cambridge and New York: Cambridge University Press, 2015), 183.

Boulez gravitated toward integral serialism. Desenclos applied some of these post-war ideas to his music, but he did not completely abandon traditional forms. In the early twentieth century, Poulenc and Arnold Schoenberg used twentieth-century compositional techniques within the framework of a traditional formal structure. This movement is an example of Desenclos's use of traditional forms—in this case, sonata form.

Desenclos's *Quatuor pour Saxophones* was commissioned by the French Parliament for Marcel Mule's quartet, to whom Desenclos dedicated the work. Marcel Mule (1901-2001), an influential saxophonist and pedagogue, held the prestigious position of Professor of Saxophone at the Paris Conservatory from 1942 until 1968. Mule and Desenclos were friends, who would take vacations together alongside family and other friends. According to Audrey Cupples, Mule considered this work by Desenclos to be "one of the finest saxophone quartets written."² Mule's saxophone ensemble, formed in 1928, encouraged the acceptance and establishment of the saxophone quartet as a medium for composers.³

Mule was historically important because he was a famous virtuoso saxophonist, and many composers were eager to write works for his quartet. This quartet promoted new music, and premiered many works. Many talented composers from the 1930s through the 1960s wrote works for Mule's quartet, especially French composers. Some well-known composers of works for Mule's ensemble were Robert Clerisse, Alexander Glazunov, Gabriel Pierne, Jean Absil, Eugene Bozza, Jean Rivier, Florent Schmitt, Jeanine Reuff, Claude Pascal and, of course, Desenclos. The works that were composed for Mule's quartet have become the foundation of the French classical saxophone repertoire.

² Audrey Cupples, *Marcel Mule: His Influence on Saxophone Literature*, (DMA Diss. University of Maryland, 2008), 10.

³ This influential ensemble was originally called *Le Quatuor de la Musique de la Garde Republicaine*. In 1936, Mule left *La Garde Republicaine*, and the quartet changed its name to *Le Quatuor de Saxophones de Paris*. From 1951 through 1967, the quartet was called the *Marcel Mule Quartet*.

Desenclos's *Quatuor pour Saxophones* is a three-movement work for the standard saxophone quartet, which includes the soprano saxophone, alto saxophone, tenor saxophone and baritone saxophone. It was published by the French publisher Alphonse Leduc in 1964.

Regarding the first movement, Richard Ingham makes the following comment,

Desenclos writes long complex chromatic lines but the rhetorical nature of his writing is undeniably traditional and ultimately rooted in tonality. The opening movement of his *Quatuor* initially pits the soprano against the other three in a surprising conflict so early in a piece, yet this feature is developed throughout the movement: a separation of smaller groups within the quartet, providing timbral contrasts, both in terms of individual instrumental colour as well as textural variety.⁴

In reference to this quartet, Richard Ingham praised Desenclos and one of his contemporaries by stating, "Claude Pascal and Alfred Desenclos have contributed two of the most substantial works in the French repertoire."⁵ Aside from his "classical" contemporaries, Desenclos was also influenced by jazz, and he incorporated jazz-inspired rhythms and harmonies in his compositions.

The following chapters address the compositional processes used by Desenclos in the first movement of his *Quatuor pour saxophones*. Chapter 2 contains a description of the form and the melodic organization of the movement. Chapter 3 shows how Desenclos organized pitch content, and Chapter 4 highlights textural and structural rhythmic elements. In Chapter 5, the results of the analysis of this movement are applied to various aspects of performance.

⁴ Richard Ingham, "The Saxophone Quartet," *The Cambridge Companion to the Saxophone* (Cambridge and New York: Cambridge University Press, 1998), 67.

⁵ Ingham, "The Saxophone Quartet," 67.

CHAPTER 2
Form and Melodic Organization

The first movement of Desenclos's *Quatuor* is in sonata form. Desenclos created contrast in the Exposition by changing the character, themes, meter, and pitch organization method. The Development section follows the Exposition and leads to a Recapitulation of the opening material. The movement ends with a short Coda that returns to the opening theme at the original pitch, see Table 1.

<p>Exposition mm.1-64 Theme 1 Group mm. 1-29 Theme 2 Group mm. 30-64</p>	<p>Development mm. 64-99 New Material/Variations of Themes 1 and 2</p>
<p>Recapitulation mm. 100-148 Theme 1 Group mm. 100-122 Theme 2 Group mm. 122-148</p>	<p>Coda mm. 149-157 Theme 1</p>

Table 1. Sonata Form in Movement 1

The movement begins with a passage that alternates between a 3/4 meter and a 4/4 meter. This passage has many sixteenth-notes throughout, and it is rhythmically active. The theme 1 section is twenty-nine measures in length. Desenclos changes the meter to 6/8 at measure 30, for the second theme. This change in meter creates a new mood or character. The length of the theme 2 section is similar to that of the theme-1 section. It is 33 measures long, and one encounters many melodic ideas derived from the second theme in this section. A detailed description of the melodic material in this movement will be presented later in this chapter.

The development section begins in measure 64 with a short baritone solo that contains material that is derived from the first theme. One can see that this section is almost the same

length as the two previous sections. This section is 35 measures in length, and it contains melodic material from theme 1 and 2. Desenclos used the same meters in the development section that were first presented in the exposition.

In measure 100, the recapitulation begins with a return of the first theme followed by variations of the theme 1 material. Desenclos ends the movement with a short coda that begins in measure 149 and ends in measure 157. The first theme returns in measure 149, and then leads to closing material that provides an emphatic ending for the movement.

Desenclos chose to use a traditional form that was presented in a relatively conventional manner. The first theme is rhythmically active, and it captures the attention of the listener. In contrast, the second theme is lyrical, slower, and in a different meter. Desenclos creates contrast between the two themes by changing the character of each theme, which is a traditional technique. Additionally, Desenclos retained the conventional sections of sonata form, which are an exposition, with two themes, development, and recapitulation. The use of conventional sonata form sections, and the contrast between themes, provides a link between this movement and the music of the eighteenth and nineteenth centuries.

Eric Nestler described one of Desenclos's works for saxophone as follows, "Desenclos employs a variety of compositional techniques and devices in the *Prelude, Cadence et Finale* in order to create musical variety and excitement within a tightly knit and unified whole."⁶ The first movement of the *Quatuor pour Saxophones* can be described in much the same way. The soprano saxophone is the first instrument to play theme 1 at the end of measure 1, and the theme

⁶ Eric M. Nestler, "An Analysis of Alfred Desenclos' Prelude, Cadence et Finale," *The Saxophone Symposium* 21, nos. 3-4 (1996): 25.

ends on beat 3 of measure 4.⁷ This theme appears in different voices, it is transposed, and fragments of it are used later.



Example 1. Measures 1-7: Theme 1

Theme 2 is also in the soprano saxophone part, and it first appears in measure 32. Desenclos's second theme is distinct from the first theme because it is more lyrical, it has a different collection of pitches, and a different meter.



Example 2. Measures 32-40: Theme 2

The Development section begins in measure 64 with a new harmony and transitional material. There is a variation of theme 2 material that begins in measure 78 and a variation of theme 1 material in measure 84. The section ends with more transitional material that leads to a return of theme 1 at the original pitch level in measure 100. The recapitulation begins in measure 100 with the return of theme 1. This return of the opening theme is very similar to the beginning of the movement with a few variations. Measure 124 has the return of the theme 2 section with a

⁷ All of the score examples were created by the author, and are at concert pitch.

change in meter. Theme 2 returns in the soprano and tenor parts in measure 125. Theme 1 returns in measure 149, and this is the beginning of the short closing section of the movement.

Desenclos created many variants of the thematic material throughout the movement. There is a variant of theme 1 in measures 2 and 84, see examples 3 and 4. In measure 8, the second sixteenth note of beat 2 begins a transposition of theme 1. The beginning of this variant of theme 1 has been shifted one beat plus one sixteenth note earlier than the original statement. It is transposed up a perfect fourth from the original statement. However, one note does not follow the original melodic pattern of theme 1. In order for this to be a true transposition, the B-flat that is marked with an asterisk should be a B-natural. This could be an error in the score or a variant of theme 1. The continuation of this variant of theme 1 is clearly different from the original. Beat 1 of measure 9 presents the pitches C-sharp and B, which are not found in the original. The shifting of the point of entry, the wrong note, and the new melodic material make this a variant of theme 1. The part of the theme 1 variant that is heard in measure 9, follows the contour of the original, and it does have the B-natural that is missing at the beginning of this variant. Desenclos repeats many of the same interval patterns in this movement, but he creates forward motion and contrast by composing melodic variants.



Example 3. Measures 8-9: Theme 1 Variant

There is another variant of theme 1 in measures 84 and 85. Once again, Desenclos shifted the entrance of the theme 1 variant. In measure 84, the theme 1 variant begins on the upbeat of beat

1 with the note B-natural. Moreover, notes four and five do not follow the melodic pattern of the original theme 1 statement.



Example 4. Measures 84-85: Theme 1 Variant

In this example, the intervals and their order have been altered, however, the contour and the rhythms are similar to the original theme 1. The interval between the B-natural and the D-natural is a minor third, not the perfect fourth that was in the original statement. In order for Desenclos to have a true transposition of theme 1, the B-natural should be a G-sharp followed by a C-sharp and a D-natural. Moreover, the G-natural, the sixth pitch of the variant, should arrive before the F-sharp. The first four notes of this variant of theme 1 contain the same interval content as notes three through six of the original theme. In spite of all of the changes to the melody, the melodic contour and the pitch organization of this variant are similar to theme 1.

In addition, there are some variants of theme 2. Theme 2 first appears in measure 32, and a variant appears in measure 45, see example 5. The variant begins like the original theme that was seen in measure 33, but the ending is different. There is a different note on the third eighth-note of the variant. In the original theme 2, this note is a B-natural, but in this variant it is an F-sharp. This changes the ending of the theme 2 variant, and makes it distinct from the original. Desenclos used the same rhythms, basic contour, and pitch collection in this variant of theme 2. This variation of theme 2 is very similar to the original.



Example 5. Measures 45-46: Theme 2 Variant

Desenclos was interested in using repeated intervals to create coherence in his music. The term coherence is used in the same manner that Arnold Schoenberg used the term in his writings on his theory of form. Schoenberg based his theory of form on his concepts of comprehensibility and coherence. In reference to Schoenberg's ideas, Patricia Carpenter and Severine Neff explain that, "Comprehensibility in general refers to conditions that allow the listener to grasp the whole. A musical content is musically comprehensible when its small and smallest parts share such coherence among one another and with the whole as would in general be required for comprehensibility."⁸ Moreover, "Coherence in general refers to conditions that bind together an object, bringing its components into a meaningful interaction."⁹ Schoenberg believed that musical elements that are related or have coherence could create and convey a larger musical idea, even if these elements are varied. Coherence leads to the comprehensibility of a work by the listener, which is the goal of the composer, according to Schoenberg. In this analysis, one will see that Desenclos used a small number of structural musical elements to create coherence in this movement. His methods for using melodic, and harmonic elements to achieve coherence and comprehensibility will be presented in the following chapters.

Desenclos used the melodically ascending perfect-fourth interval several times throughout this movement. The ascending perfect-fourth motive begins with the ascending fourth followed by a descending half-step, but there are some variants. This motive is first heard at the

⁸ Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of its Presentation*, trans. Patricia Carpenter and Severine Neff (Bloomington: Indiana University Press, 2006), 23.

⁹ Arnold Schoenberg, *The Musical Idea and the Logic, Technique, and Art of its Presentation*, 24.

beginning of the movement, in the baritone part and at the beginning of theme 1. Moreover, most of the melodies in the first theme group begin with an ascending perfect fourth. As stated earlier, the repeated use of the ascending perfect-fourth motive creates coherence in the opening section. Several examples of the ascending perfect-fourth motive are presented in example 6.

The image displays four musical staves illustrating ascending perfect-fourth motives. The first staff, labeled 'mm. 1', is in bass clef with a 3/4 time signature and shows three boxed segments of ascending perfect-fourth intervals. The second staff, labeled 'mm. 1-3', is in treble clef with a 3/4 time signature and shows a melodic line starting with an ascending perfect fourth. The third staff, labeled 'mm. 14-15', is in treble clef with a 3/4 time signature and shows a melodic line with an ascending perfect fourth. The fourth staff, labeled 'mm. 18-20', is in treble clef with a 3/4 time signature and shows a melodic line with an ascending perfect fourth.

Example 6. Comparison of Ascending Perfect-Fourth Motives

Desenclos used a small number of Pitch-Class sets to organize the melodic material of this movement. Set theory is the most efficient analytical method to label these collections of pitches. The term Pitch-Class set (PC-set) refers to an unordered collection of pitch-classes. A pitch-class is a pitch without reference to a specific octave. It does not refer to a specific pitch such as A-440, but it refers to the pitch A in all octaves.

A PC-set is usually not used as a motive because many of its unique melodic characteristics, such as register, rhythm, and pitch-order, are not represented. The intrinsic

properties that remain in the PC-set are the interval-classes of a musical idea. The prime form of all of the PC-sets will be used to label them in this analysis of the first movement of Desenclos's *Quatuor pour Saxophones*. Joseph Straus expounds on the topic by stating, "a common way of identifying set classes is to look at all of the members of the set, select the one with the "most normal" of normal forms, and use that to name the set class as a whole. This optimal form, called the prime form, begins with 0 and is most packed to the left."¹⁰ Allen Forte's method of set theory analysis was used in this study to describe pitch organization in this movement.¹¹

Desenclos used PC-sets as motives in some passages, and as a more abstract set of intervals in others. In either case, the consistent use of particular combinations of intervals provides coherence in this movement. A PC-set that is consistently found throughout the movement has a prime form of (0145). The first appearance of the (0145) PC-set is found in measure 2. It is part of the first theme that is played by the soprano saxophone. One can see the (0145) PC-set in its various forms in example 7. The pitches F, B-flat, A and F-sharp can be reduced to an (0145) prime form PC-set, and these same pitches return in measure 3. In measure 3, the four pitches that were mentioned earlier return in the same order, but in a descending line rather than ascending. These two sets are clearly related, and Desenclos created variety by altering the contour of the melody without changing the pitches. This (0145) PC-set is melodically related to the opening perfect fourth motive, and it is inversionally symmetrical. In addition, there are many shorter motives that were derived from the (0145) PC-set in the theme 1 group, Development, and Recapitulations sections.

As you can see in example 7, the beginning of theme 1 has a rising perfect fourth, which can be labeled as an (05) PC-set. Moreover, the last three pitches in measure 2 are C, B and E,

¹⁰ Joseph N. Straus, *Introduction to Post-Tonal Theory* (Upper Saddle River, NJ: Prentice Hall, 2000), 49.

¹¹ Allen Forte, *The Structure of Atonal Music* (New Haven: Yale University Press, 1977).

arranged to match the melodic contour of the original statement of theme 1. This example of an (0145) PC-set is difficult to identify by ear, but it is an (0145) PC-set, and it sounds similar to the melodic material from the first theme group. The last example of an (0145) PC-set is found at the very end of the movement in measure 156. All of the instruments are playing this four-note group in octaves, the two upper parts are in unison and the two lower parts are an octave lower. As in the previous example, the pitches are not arranged in the original order that was first heard in theme 1. The pitches in this example are in the following order: B-flat, A, F-sharp and F-natural. These are the same pitches that were used by Desenclos in the first presentation of this PC-set, but the order is different. In this statement of the (0145) statement, the perfect-fourth interval was not used. Desenclos did not consistently present the pitches of the (0145) PC-set as a traditional motive. He is interested in maintaining the interval content, but not the melodic content. When this (0145) PC-set is heard at the end of the first movement, it sounds familiar because it is derived from theme 1. This is another example of Desenclos's variation of previous melodic material, see example 8.

The image contains two musical staves. The top staff is in bass clef, 3/4 time, labeled 'm. 64 Dev.'. It shows a melodic line starting with a half note G#2, followed by a quarter note F#3, a quarter note E3, and a quarter note D3. A bracket underlines the last four notes: Bb3, A3, F#3, and F3. A box above these notes is labeled '(0145)'. The bottom staff is in treble clef, 3/4 time, labeled 'm. 156 Coda'. It shows a melodic line starting with a half note G#4, followed by a quarter note F#5, a quarter rest, and a quarter note D5. A bracket underlines the last four notes: Bb5, A5, F#5, and F5. A box above these notes is labeled '(0145)'.

Example 8. Melodic Variations of (0145) PC-sets

In the theme-1 section, there is another structurally important PC-set. An (026) PC-set is first presented in measure 4 as part of a descending line that ends the phrase. The passage begins

with two pitches that are a whole step apart, which is an (02) PC-set. This initial whole step is followed by a series of (026) PC-sets. Once again, Desenclos is presenting a subset of the structural trichord PC-set. This PC-set is more like a traditional motive because it maintains the same melodic contour through most of the movement. Moreover, he wrote a short, one-measure melodic pattern and transposed it up a perfect fourth to continue the passage at measure 6. This is another traditional method for extending melodic material. Desenclos did not use traditional chord progressions or tonality in this movement, but he used the traditional motion by fifth in this passage. In measure 7, Desenclos used the same pitches from the previous measure, but he changed the note value of the first two pitches. All of the pitches in measure 7 are sixteenth notes, which allows the composer to repeat pitches from measure 6, and then transpose them down a perfect fifth. Once again, Desenclos used a traditional method of variation by transposing the melodic material down a perfect fifth. This entire passage, from measure 4 through measure 8, is built on the (026) PC-set.

There is another example of the (026) PC-set in the theme-2 section of the piece in measures 41 through 42. This is a variation of the original presentation of the (026) PC-set motive from measure 4. In this passage, Desenclos added a pitch to some of the (026) PC-set motives to create a tetrachord that contains pitches that are a whole step apart. The other (026) PC-set examples from this passage are distinct from the original presentation because he changed the order of the intervals in the motive. The original (026) PC-set motive in measure 4 has two pitches that are a major third apart, and the last pitch is a major second lower. In the (026) PC-set that is heard in the second-theme section, these intervals are reversed. The actual (026) PC-set that is related to the previous section begins with the major second between the first two pitches and moves down a major third between the last two pitches. This is still an (026) PC-set, but

Desenclos used this PC-set like a motive, and the example of the motive in measure 41 is a retrograde inversion of the original melodic idea. The soprano has the (026) PC-set melodic material at measure 41. This passage begins with the added-note variation of the (026) PC-set, which is an (0246) PC-set. Beginning with the fourth eighth-note of measure 41, the (026) motive is presented in retrograde inversion.

This passage has an obvious whole-tone sound, and the (026) PC-set is a subset of the whole tone scale PC-set (02468T). A closer examination of Desenclos's use of whole tone collections will be presented in chapter 3. This passage provides a contrast to the sound of the theme 1 group because it is based on whole tone scales. The beginning of the movement is much more disjunct, and it has several perfect fourths.

The image contains three staves of musical notation. The first staff, labeled 'mm. 4-8', shows a sequence of notes in 4/4 time. The first three measures are grouped with boxes and labeled '(02)', '(026)', and '(026)' respectively. The subsequent notes are grouped with a bracket labeled 'Transposed up P5th'. The second staff shows a continuation of the sequence, with a bracket labeled 'Transposed down P5th' above it. The third staff, labeled 'mm. 41-42 B section', is in 6/8 time and shows two measures. The first measure is boxed and labeled '(0246)', and the second measure is boxed and labeled '(026)'.

Example 9. Comparison of (026) PC-set

Moreover, there are traditional triads and arpeggios in the opening passage that are not found in the (026) PC-set passages. Desenclos presented compelling musical material in measures 1 through 8 that was used as a building block for the musical material found in the remainder of the movement.

There is another PC-set that is of structural importance for this movement. At the beginning of the movement, the first four pitches of theme 1 are an (0167) PC-set that is first heard melodically in measures 1 and 2 in the soprano part. There are three presentations of the (0167) PC-set in measures 1 through 4, see example 10.



Example 10. Measures 1-4: (0167) PC-set

These (0167) PC-sets overlap with the (0145) PC-sets at the beginning of this movement, but the (0167) PC-set returns throughout the movement independently, and in a few structurally important points. There are passages in the theme-1 group that have melodic material that is not related to the (0145) or (026) PC-sets. They actually contain versions of the (0167) PC-set that were found at the beginning of the movement. The (0167) PC-set is present each time the opening four-note figure from theme 1 appears. Example 11 shows two passages from the first theme section that contain the (0167) PC-set.

Example 11. Comparison of the (0167) PC-set

In the Development section, there are several (0167) PC-sets that are separated by other pitches that are related to the (0145) PC-set. The baritone has a solo passage at the beginning of the development section. This passage begins with a C-sharp that descends a minor second, and the first two notes on beat two of measure 64 also descend a minor second, but transposed down a tritone. The first two pitches on beat one in measure 64 are C-sharp and C-natural followed by the first two notes on beat two, which are G and F-sharp. These four pitches are an (0167) PC-set that has been expanded by adding one pitch, in this case the B-flat in measure 64. There are interlocking (0167) PC-sets in this passage, as in measure 65. The (0167) PC-set recurs in this manner melodically from measure 64 through 67, see example 12.

Example 12. Measures 64-65: (0167) PC-set

This set is also related to the octatonic scale, which is an (0134679T) PC-set that contains the (0167) PC-set as a subset. The octatonic collection will be discussed in more detail in chapter 3. A different version of the (0167) PC-set is heard in measures 98 and 99, see example 13.



Example 13. Measures 98-99: (0167) PC-set

This is another (0167) PC-set that is melodically different from the original statement. In this example, Desenclos maintained the same interval content, but he did not retain the melodic contour, or present it as a traditional motive. This is transitional passage that is based on the (0167) PC-set. All of the instruments have a similar rhythmic figure in this passage, but the figure on beat 1 of measure 98 is an (0167) PC-set that is harmonized at the major sixth. The soprano and the tenor have the harmonized (0167) PC-set figure. In measure 99, the same harmonized figure appears to end the Development section. Desenclos privileged the (0167) PC-set by using it at structurally important points throughout the movement.

At the Recapitulation, which begins at measure 100, Desenclos presents theme 1 again, and this includes the (0167) PC-set, as in the beginning of the movement. The same (0167) PC-set from the opening section appears several times throughout the first theme group section of the Recapitulation and the Coda section. Desenclos is using the repetition of the (0167) PC-set in the Recapitulation and Coda in the exact same melodic manner that was found at the beginning of the movement. He is using this PC-set as a traditional motive rather than a variation of the opening idea. In this movement, Desenclos used a few structural intervallic ideas as the source

for the melodic material of this movement. An application of the results of this analysis to the performance of this movement will be presented in chapter 5.

CHAPTER 3 Pitch Organization

This chapter includes a detailed explanation of Desenclos's methods for organizing pitch content throughout the movement. The piece begins with a passage that is organized by intervals. Each of the three lower voices enters simultaneously on a pickup to measure 1. The alto has a descending concert A major triad, but starting on the fifth, (E, C-sharp, A) and the tenor has a descending G major triad (D, B, G) and the baritone has an ornamented descending F major triad (C, A, F). The PC-set for a major triad is (037). Each of the three lower voices enters with simple descending major triads, but each voice is a whole step apart. This creates a dissonant sound that is tonally ambiguous at the beginning of the movement. If these three voices are lined up, the first harmony would have the pitches C, D, and E, the second harmony would have A, B, C-sharp and the third would have the pitches F, G and A, see table 2. Each one of these harmonies sounds as if it could be part of a whole tone collection, but Desenclos moves through them quickly, and the harmonies are masked by the ornamented baritone part.

Alto	E	C-sharp	A
Tenor	D	B	G
Baritone	C	A	F

Table 2. Measure 1: Structural pitches in the lower voices

The baritone begins with a rising perfect-fourth interval followed by a descending minor-second that becomes an important motive in the movement. At the end of measure 1, the baritone moves to an A and the upper voices hold the pitches A and G. This sounds like an A major-minor seventh chord without the third. In measure 2, the G resolves down to F-sharp and the A in the alto is held and the baritone moves to a D. The chord on beat one of measure 2 is a D major triad in root position. Essentially, the movement begins with an auxiliary cadence that arrives on

an A chord, at the end of measure 1, that resolves to a D major chord in measure 2. Moreover, the D major chord is obscured by the dissonant pitches found in the soprano part in measure 2. The soprano has the following pitches above the D major chord: F-natural, B-flat, A, and F-sharp. These pitches include the split third, both a major and minor third, and a split fifth, both the perfect fifth and the augmented fifth. These altered chord tones create harmonies that were used by jazz composers and performers decades before this piece was composed. In the early twentieth century, French artists were interested in creating art that was inspired by everyday life. Jean Cocteau called for a new direction in French art in his book *Le coq et l'arlequin*, published in 1918. Glenn Watkins wrote that Cocteau “called for the elimination of foreign and especially German elements and the subscription of themes from everyday life. Toward this end the composer was encouraged to turn to the music hall, the circus, and jazz in order to emphasize directness, brevity, and a certain *sec* quality”¹² This movement demonstrates the influence of Cocteau and the harmonies that were mentioned above can be directly related to jazz.

Pitch collections will be labeled with pitch class set numbers to demonstrate Desenclos’s frequent use of a small number of structural pitch class sets in this movement. Desenclos organized pitch material by using interval sets, and tertian harmony. The following analysis will provide a description of how Desenclos organized pitch material for the entire movement.

In the previous chapter, PC-sets were found in the melodic material of the movement, but Desenclos also used PC-sets harmonically. One of these PC-sets that was used melodically and harmonically is the (026) PC-set. There are several examples of the (026) PC-set as a chord in this movement. Desenclos employed some of the structural PC-sets mentioned in the previous chapter melodically and harmonically in order to unify the movement. At the beginning of the movement, the (026) PC-set is used harmonically between measures 4 and 7, see example 14.

¹² Glenn Watkins, *Soundings: Music in the Twentieth Century* (Belmont, CA: Wadsworth Group, 1995), 269.

mm. 4-7

Alto, Tenor, Bari

The image shows a musical score for three voices: Alto, Tenor, and Bari. The score covers measures 4 through 7. Above the notes in each measure, the label '(026)' is written, indicating the pitch-class set of the chords. The music is written in treble clef for the Alto and Tenor parts, and bass clef for the Bari part. The time signature changes from 4/4 to 3/4 and back to 4/4. The notes are primarily eighth and quarter notes, with some rests. The overall texture is dense and rhythmic.

Example 14. Measures 4-7: (026) PC-set Harmony

On the upbeat of beat two of measure 4, one can see the pitches F-sharp, A-sharp and E, in the three lower voices. These pitches can be reduced to an (026) PC-set in prime form. The arrangement of the pitches and the intervals are the same for most of the chords in this passage. This passage is densely packed with (026) PC-sets that create tension. Desenclos changed the pitches of these chords, but maintained the intervallic content by using parallel motion. However, in measure 7, the (026) PC-set sounds different than the previous examples. On beat one of measure 7, the pitches D-sharp, A, and C-sharp are present. These chords sound different, but they are part of the same set class and can be labeled as an (026) PC-set. Each of these trichords share the exact same interval vector.

An interval vector shows the intervallic content of a pitch-class set. Six interval classes represent all of the possible intervals because inversions are omitted. Interval classes are organized from the smallest interval to the largest interval. The first interval class on the left is labeled with a 1, and it is a minor second, and the last interval class is labeled with the number 6, which is a tritone. The interval vector contains numbers to indicate the number of times an interval class appears in a pitch-class set. One can use an interval vector to demonstrate the connection between these different sounding (026) PC-sets, see Table 3.

Interval Classes	1 2 3 4 5 6
Interval Vector	0 1 0 1 0 1

Table 3. Interval Vector for (026) PC-set

The interval vector for the (026) PC-set is 010101, which indicates that there is one major second, one major third, and one tritone in this collection of pitches. These are all of the possible intervals between these pitches in the (026) PC-set. The (026) PC-set in measure 4 has the pitches F-sharp, A-sharp, and E, and the (026) PC-set in measure 7 has the pitches D-sharp, A and C-sharp. These two collections of pitches have a different sound, but they have the same interval content; a major second, major third and a tritone. This demonstrates how these different sounding collections of pitches are closely related to each other and why they are labeled as the same PC-set.

The next presentation of an (026) PC-set chord is found in measures 68 and 69, in the three lower voices. This example of an (026) PC-set chord has the same interval content as the previous example, but the pitches are arranged in a different order. In the first example, found in measure 4, the interval between the baritone and tenor is a major third, and the interval between the tenor and the alto is a tritone. In the second example, in measure 68, the interval between the baritone and the tenor is a tritone, and the interval between the tenor and the alto is a major second. One can also look at these harmonies in a more traditional manner, and see them as incomplete major-minor seventh chords. In measure 4, the pitches F-sharp, A-sharp and E were used harmonically, which can be interpreted as an F-sharp major-minor seventh chord without a fifth. In the second example, in measure 68, the pitches G, B and F were used, which implies a G major-minor seventh chord without a fifth. Desenclos used parallel motion to connect (026) PC-set-chords, see example 15.

Example 15. Measure 68: (026) PC-set

Moreover, the material in the three lower voices of measure 68 is repeated in measure 69. This example of a (026) PC-set harmony is from the Development section, Desenclos is developing material from the theme-1 group.

The next example of an (026) PC-set chord is found in measures 102 through 105. This is at the beginning of the Recapitulation and it is a restatement of the original material from the theme-1 group. All of the pitches and rhythms from measure 102 through 105 correlate to measures 4 through 7 in the Exposition. In measure 114, Desenclos composed new material that was not found in the original first theme group to lead to the return of theme 2 in measure 123. The (026) PC-set chord reappears in measures 117 through 122 in the three lower voices. This presentation of the (026) PC-set is interesting because the examples found in measures 117 through 119 are like the (026) PC-set chords in the previous examples. The (026) PC-set chords found in measure 120 and the first beat of measure 121 sound different, but they are both (026) PC-sets. Each of these examples share the exact same interval vector, similar to the relationship between the (026) PC-sets found in measures 4 through 7.

Measures 146 through 147 contain another example of an (026) PC-set used as a chord. Desenclos is recalling the major-minor seventh sound, that was first heard in measure 4, at the

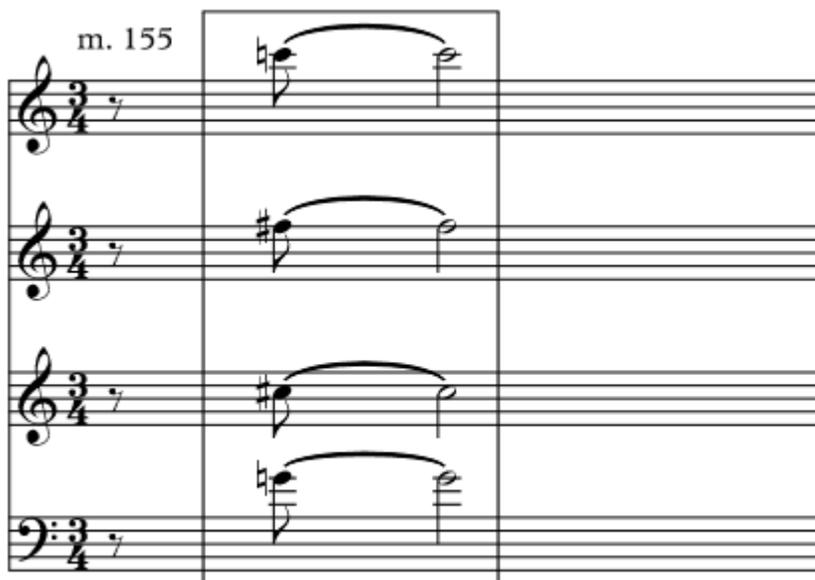
end of the movement. The (026) PC-set chords are once again in the three lower voices, and they are moving in parallel motion. A few measures later, the (026) PC-sets return in measures 151 through 154. Measures 151 and 152 are very similar to measures 4 and 5, this is a restatement of theme 1. The restatement is at the original pitch level and so are the (026) PC-sets. Desenclos continues the harmonic use of the (026) PC-sets in measures 153 and 154. One can find the (026) PC-set from beat 1 of measure 153 through measure 154.

Desenclos has unified the movement by using different versions of the (026) PC-set harmonically. The close relationship between these PC-sets can be hidden if one is attempting to analyze them as incomplete traditional chords. But, with the use of set theory, one can see that these harmonies are related because they share the exact same interval vector.

Much like the (026) PC-set, the (0167) PC-set is presented as a chord in this movement. It appears at two structurally significant points in this movement. As stated earlier, the melodic presentation occurs at the beginning of the movement, and in several other passages throughout the movement. The harmonic version of the (0167) PC-set is first heard in measures 63 and 64, which is at the end of the Exposition in a passage that leads to the Development section. Desenclos composed a relatively long closing passage that begins in measure 52 and ends on beat one of measure 64. Measure 63 is the last measure of the exposition and the downbeat of measure 64 is an elision because the previous musical material ends here and a new melodic idea begins on the same beat in the baritone part. Beat one of measure 63 contains the pitches G, C-sharp, F-sharp and B, which is not an (0167) PC-set. It is actually an (0157) PC-set because of the B natural in the soprano part. However, all of the following harmonies in that measure, and beat one of measure 64, are (0167) PC-sets.

This could be a possible mistake in the score because the soprano saxophone should have a C instead of a B, in order to make the first chord in measure 63 an (0167) PC-set. Desenclos has used variations of PC-sets, themes, and other musical elements throughout the movement. It is difficult to definitively state that this is a misprint in the score, but it would be logical for all of the chords in measure 63 to be identical. The two lower parts are a tritone apart, and are both descending diminished seventh chords. Almost all of the pitches in the two upper voices are a tritone apart, except for the first two pitches. The first two pitches are a perfect fourth apart instead of a tritone apart. Moreover, the two upper voices are also descending diminished seventh chords with the pitches F-sharp, E-flat, C, and A. The only pitch that does not fit the pattern is the B-natural on beat one of measure 63, in the soprano part.

There is another chordal presentation of the (0167) PC-set at the end of the movement. In measures 155 and 156, all of the voices hold a chord that is a climactic and familiar. This chord is almost the exact same chord that was seen on beat one of measure 63. The difference is that the upper voice has the correct pitch, in this case it is the pitch C. On beat one of measure 63, the soprano has one pitch, the B-natural, that does not fit the pattern. Perhaps, the “wrong note” that was found in measure 63 is corrected in measure 155. This chord is arranged in the same manner as the earlier example of the (0167) PC-set chord. The two lower voices are a tritone apart and the upper voices are also a tritone apart. In addition, these two pairs of tritone intervals are a minor second apart like the earlier presentation, see example 16.



Example 16. Measure 155: (0167) PC-set chord

Desenclos is using the chordal presentation of the (0167) PC-set as another means of achieving coherence in this movement. Both the (026) and (0167) PC-sets are used as chords to unify the movement in a manner that is not always obvious to the listener or performer. These related PC-sets may look different, especially the (026) PC-set, but there is something similar about the overall sound of these PC-sets. It is helpful for performers to know that there are only two PC-sets that were used as chords in this movement, the (026) PC-set and the (0167) PC-set. This is another example of the thoughtfulness and meticulous compositional method that Desenclos employed in his works.

Desenclos used pentatonic, whole tone, and octatonic scales in this movement. These scales are used to organize the pitch material in various passages, instead of PC-sets. The first example of pitch content that is organized by a scale can be found at the beginning of the movement. There is a definite whole tone sound that begins in measure 4 and ends in measure 7. This is the passage that contains the (026) PC-set, which is a subset of the whole tone scale PC-set (02468T). The soprano part has three-note descending figures that begin in measure 4. Each

three-note figure is alternating between whole-tone collection 0 and whole-tone collection 1. The three-note figures begin on the third sixteenth note of beat three in measure 4, the pitches are F-sharp, D and C. These three pitches are part of the WT0-collection, and the following pitches, which are E-flat, B, and A, are from the WT1-collection. In addition, these three-note groups are also (026) PC-sets. This passage is organized by alternating whole tone collections, but Desenclos is using the (026) PC-set as a motive. Later in the movement, the three-note figure gets expanded to a four-note figure.

Pitch content in the passage that begins in measure 30 is organized by using the pentatonic scale. This is the second theme group of the movement that begins with a different meter, and a different sound than the previous section. One can see that this is the lyrical second theme, and the soprano has the melody in measure 32. However, almost all of the pitches found in measures 30 through 32 are derived from the F-sharp major pentatonic scale, which includes the pitches F-sharp, G-sharp, A-sharp, C-sharp and D-sharp. The only pitch that does not fit the F-sharp pentatonic scale is the E-sharp at the end of measure 32 in the alto part, see example 17.

mm. 30-32

The musical score for measures 30-32 is presented in four staves. The top staff (Soprano) begins with a whole rest in measure 30, followed by a melodic line in measure 31 and a more active line in measure 32. The second staff (Alto) features a rhythmic pattern of eighth notes in measure 30, followed by a melodic line in measure 31 and a more active line in measure 32. The third staff (Tenor) features a rhythmic pattern of eighth notes in measure 30, followed by a melodic line in measure 31 and a more active line in measure 32. The bottom staff (Bass) features a rhythmic pattern of eighth notes in measure 30, followed by a melodic line in measure 31 and a more active line in measure 32. The key signature is one sharp (F#) and the time signature is 6/8.

Example 17. Measures 30-32: Pentatonic Collection

Desenclos was clearly interested in creating contrast from the sound and style of the first section by writing a more lyrical second theme. The pentatonic sound differs from the dissonant sound

of the theme-1 group. In measure 33, Desenclos used a different pentatonic scale, in this case an A major pentatonic scale. Moreover, pitches from the A major pentatonic scale are found in the soprano part in measures 33 and 34, but not in the other parts. In measures 37 and 38, the melodies are based on the A major pentatonic scale. The next two measures are a transposition of the material from measures 37 and 38 up a perfect fourth. In measures 37 through 40, counterpoint becomes an important organizing principle in addition to the use of pentatonic scales.

The whole tone material first presented in measure 4 returns in measure 41 in a varied form. Desenclos is using a descending three-note figure that is similar to the figure found in the soprano part in measure 4. This figure was labeled as an (026) PC-set, and it is related to the whole tone collection. In measure 41, the three-note figure has been expanded to a four-note figure. The last three pitches of measure 41 are an (026) PC-set, but it is a retrograde inversion of the earlier presentations of the (026) PC-set.

The image contains two musical staves. The top staff is labeled 'm. 4' and is in 4/4 time. It shows a descending three-note figure (026) PC-set, which is a retrograde inversion of the whole tone collection. The bottom staff is labeled 'm. 41' and is in 6/8 time. It shows a four-note figure (0246) PC-set, which is an expansion of the whole tone collection, and a three-note figure (026) PC-set, which is a retrograde inversion of the whole tone collection.

Example 18. Inversion and Expansion of (026) PC-set

Although, the two three-note figures in measures 4 and 41 are melodically different, they are both (026) PC-sets and share the same interval content. As in the earlier passage, these whole tone figures can be seen as alternating whole tone collections. The first four pitches in the soprano part of measure 41 are from the WT0-collection, and the last three pitches of measure 41

are from the WT1-collection. This whole tone material continues in the soprano part through measure 43. The pitch organization of the other voices is based on the use of parallel major triads, as stated above.

The second theme returns in measure 45, and it is similar to measure 33. Desenclos used the same pitches from measure 33 in the theme found in measure 45. The passage from measure 45 through 50 is organized by counterpoint, the pentatonic scale, and the use of major and minor triads. New melodic material is introduced at the end of the Exposition at measure 52. Part of the end of the Exposition is organized by a scale. In this example, the pitches in measure 56 are derived from octatonic collections. The first six sixteenth notes in measure 56 are from the octatonic (0,1) collection, and the next six notes are from the octatonic (1,2) collection, see example 19.



Example 19. Measure 56: Octatonic Collection

Desenclos is using alternating octatonic collections to organize the pitch content of this passage from measure 56 through 59. This is similar to the use of alternating whole tone collections earlier in the movement. In measures 60 through 61, Desenclos combines octatonic collections. The soprano and the tenor parts have pitches from the octatonic (1,2) collection. In contrast, the alto part has pitches from the (2,3) octatonic collection. This combination results in parallel minor triads in first inversion in the upper three voices from measure 60 through 61.

In the Development section of the movement, one can find more examples of octatonic and whole tone collections. The soprano has a new descending melody that begins in measure

68. This new melodic idea contains pitches from the octatonic (1,2) collection, exclusively. All of the pitches in the soprano part from measure 68 through 69 are derived from the (1,2) octatonic collection. Moreover, the pitches in the three lower voices in measures 68 and 69 are (026) PC-sets that are derived from the (1,2) octatonic collection.

mm. 68-69

The image shows a musical score for measures 68 and 69. It consists of four staves. The top staff is the soprano part, which has a complex melodic line with many accidentals and slurs. The three lower staves (Alto, Tenor, and Bass) show rhythmic accompaniment with slurs and rests. The time signature is 4/4.

Example 20. Measures 68-69: Octatonic Collection (1,2)

These lower voices are also (026) PC-sets that were presented earlier. It is interesting to see how Desenclos is creating new melodic material that is derived from sources that were presented earlier in the movement. The (026) PC-set was presented in measure 4, and the octatonic collection was found in measure 56, at the end of the exposition.

The same melodic idea is found at the end of measure of 70, but it is a variation of the previous statement. In the example found in measure 70, the melody begins with a descending half-step followed by an ascending minor third. This is different from the melody that begins with a pick up at the end of measure 67. These two passages are derived from octatonic collections, but they are not sequential or simply transpositions of the same idea. Desenclos created a highly integrated composition by using a small number of sources for musical material. In contrast, he is also consistently creating variety throughout the entire movement by making

subtle changes to rhythmic, melodic and harmonic content. There is another variation of the octatonic melody at the end of measure 73. It begins in the same manner as the statement that begins at the end of measure 67. However, in measure 74 it is different because the line ascends at the end of measure 74. All of the pitches in the soprano part from measure 74 through 77 are from the (0,1) octatonic collection. Desenclos used the varied melodic figure in 73 with the pickup in the next three measures. He has transposed the original statement up a minor third in measure 75, up a tritone in measure 76, and up another minor third plus an octave in measure 77. Both measures 76 and 77 are in a 4/4 meter and the melodic idea has been extended by one beat. Beat one of measure 76 has an ascending figure that leads to a restatement of the melodic idea found in the soprano part from measure 74.

mm. 74-77
Soprano part
(0,1) Octatonic Collection

Example 21. Measures 74-77: Octatonic Collection (0,1)

In the soprano part of measure 78, Desenclos started a whole tone passage that is similar to the passage that began in measure 41. The first two measures of the passage that begins in measure 78 are similar to the earlier statement, but it has been transposed up a major third and extended. In the original statement, the passage is four measures long, and the later passage is six measures in length. Desenclos has repeated the opening material from measure 78 down an octave in measure 80. The melodic figure is descending by tritone intervals in measures 78 through 80. In measure 81, the last three notes of the figure have been altered to end the passage. The composer

extended the passage to measure 83 by augmenting the rhythm of the first four pitches in measure 81, see example 22.

mm. 78-83
Soprano part



Example 22. Measures 78-83: Extended (026) PC-set passage

The end of the development section has another octatonic collection that organizes the melodic material from measures 94 through 99. All of the voices in this closing passage of the development section have pitches from the (1,2) octatonic collection, see example 23.

This is the imitative section that has paired voices, and it has the (0167) PC-set, which is related to the octatonic collection. The octatonic material in this passage is very different in comparison to the opening material that reappears in measure 100.

The recapitulation begins in measure 100, and much of the material from the beginning is repeated. There is another scale collection passage that begins in measure 117. Desenclos used the (0,1) octatonic collection the soprano part, but a few extra notes were added. For example, the G-sharp in measure 117, the B-natural in measure 118, and the D in measure 120 and 121 are

mm. 94-99

The image displays a musical score for measures 94-99. It is organized into two systems, each containing four staves. The first system covers measures 94, 95, and 96. The second system covers measures 97, 98, and 99. The notation includes various rhythmic values, accidentals, and phrasing slurs, indicating a complex and chromatic melodic structure.

Example 23. Measures 94-99: Octatonic Collection (1,2)

all pitches that are not part of the (0,1) octatonic collection. This passage is a variation of the material that was presented in the Development section in measure 73. The rhythm and contour of the latter passage is similar to measure 73, but the figures are slightly different. Each of the passages begins with the same pitches, but they are different in the first full measure of the passage.

The passage that begins in measure 73 only contains pitches from the (0,1) octatonic collection. Desenclos used chromatic figures in the similar passage that begins in measure 117. As stated earlier, these passages have similar rhythmic material and contour, but they are different. This is another example of the use of variation that Desenclos applied throughout the movement.

In measure 123, theme-2 material returns, including the use of pitches from the A pentatonic scale. The pitches found in the upper three voices in measures 124 and 125 are from the A pentatonic collection. There is a variation in the presentation of the second theme. It is performed by the soprano and the tenor in octaves, and the alto part is more rhythmically active than the original statement. The pentatonic sound continues in the next passage that begins in measure 128. In this passage, the composer used pitches from the C pentatonic collection in measure 128 through 129, which is different from the A pentatonic material in the original statement. Most of the pitches are from the C pentatonic collection, with the exception of the F in the tenor part in measure 128 and the F in the alto part in measure 129. In measure 130, the previous two measures are transposed up a perfect fourth, and the F pentatonic collection is the basis for pitch organization. The transposition up a fourth is found in the original statement, but at a different pitch level.

As stated in the original theme 2 group, the use of whole tone material is found in the next passage that begins in measure 132. However, the pitch level is different and the passage has been extended, in comparison to the original. This passage is three measures long, and the original was two measures long. The pitches in the theme 2 passage in the Recapitulation are a minor-third higher than the parallel passage found in the original theme 2 group. As in the original, these figures are related to alternating whole tone collections, WT0 and WT1 respectively, and the (026) PC-set. As in the original, the whole tone material is present in the soprano part, but not in the three lower voices.

The whole tone passage leads directly to an octatonic passage that begins in measure 135. This passage has new melodic material that contains pitches from the (2,3) octatonic collection. Desenclos used this as a linking passage that is followed by a return to the second theme in

measure 138. The soprano part has the melody, and the three lower parts are moving together in parallel motion. Most of the pitches in the soprano part, from measure 135 through 136, are from the (2,3) octatonic collection. The one pitch that is not part of that octatonic collection is the C-sharp on beat one of measure 135. Desenclos used parallel major triads in second inversion in the three lower voices, consequently, some of the pitches in the lower voices do not belong to the (2,3) octatonic collection.

At measure 138, the second theme returns which includes the return of the pentatonic material in the soprano part. This restatement of theme 2 is unusual because the first measure and the second measure of the second theme have pitches from two distinct pentatonic collections. The pitches in the soprano part in measure 138 can be related to the E-flat pentatonic collection, omitting the E-natural and based on previous statements. In measure 139, the theme continues with pitches from the D-flat pentatonic collection.



Example 24. Measures 138-139: Theme 2 in the soprano part

There is no precedent for combining two pentatonic collections in the same melodic phrase in this movement. The melodic contour and the rhythm in the soprano part are the same as the original. As in earlier statements, the composer has used different methods for pitch organization in the lower voices. In this case, the lower voices are based on the (0145) PC-set in measure 138 followed by a G-flat major chord, with an added seventh, in measure 139.

The second theme returns in measure 142 in the soprano part. In this statement of the theme, the pitches are based on the F-sharp major pentatonic collection, unlike the previous statement. In measure 144, there is an interesting repetition of the melody from measure 143 in

the soprano part. The previous measure was based on the pitches of the F-sharp major pentatonic collection. In this restatement, the contour is the same, but most of the pitches have been transposed up a diminished fifth. However, the first note in the soprano part is an E-flat, not an E-natural. The transposition down a tritone would make the first note an E-natural, because the first note in the previous measure is an A-sharp. All of the other pitches in the soprano part in measure 144 were transposed up a tritone. In addition, the lower voices all have E-naturals, not E-flats. This could be an error in the score or Desenclos could have changed a note to create variety, and to avoid a simple transposition at this point in the movement, see example 25.



Example 25. Measures 142-144: Theme 2 with altered note

The octatonic sound returns in measures 145 through 148, but there are two different octatonic collections in this passage. The first octatonic collection is the (0,1) collection in the soprano part in measure 145. In measure 146 through 148, Desenclos used the (1,2) octatonic collection as the source for pitches in the soprano part.

The final passage that has pitches from a scale collection is found in measures 151 through 153. Most of the pitches in the soprano part are derived from one of the whole tone collections. This passage is related to the passage that contains alternating whole tone collection figures. This is found in theme 1, and this is a restatement of theme 1 that began in measure 149. As in the original statement of theme 1, the figures suggest alternating WT0 and WT1 collections. Desenclos creates a variation of the restatement by changing the end. He changed the meter in measure 153 and the pitches in measure 154. The pitches in the soprano part in measure 154 are F-sharp, D-sharp and C-sharp. These pitches are not related to any whole tone collection.

The D and C have been raised a minor second to D-sharp and C-sharp to create variety and tension at the end of the movement. This is the only example of a variation of the whole tone figures in this movement.

Harmony is part of the overall organization of this movement. Desenclos created dissonant harmonies by using unconventional methods of organizing pitch content. However, he did use traditional harmonies, such as the major and minor chords that were mentioned earlier. Desenclos used harmonies that sound like jazz chords at several points throughout this movement. In measure 1, on beat one, there is a D major chord in the three lower voices and an F-natural in the soprano part. This is a D chord with a split third, and in jazz nomenclature it would be labeled as a sharp-nine chord, which is an (01469) PC-set. At the beginning of measure 25, one sees another D major chord in the three lower voices and a G-sharp in the soprano part, which is an (0137) PC-set. Moreover, the harmonies in this movement are often extended tertian chords or a collection of pitches from one of the PC-sets that were mentioned earlier. The general use of the sharp-nine and sharp-eleven chords gives the movement a jazz-like sound quality, especially with the timbre of the saxophones.

The prominent status of the D major chord is created by repetition throughout the theme- 1 section of the exposition. Desenclos used the D major chord, and the repeated pitch D in the baritone part to elevate their status. The D major chord was used as a device to create coherence throughout the movement. The final statement of the movement ends with all of the voices playing the pitch D in octaves.

Form	Melodic Organization PC-sets	Pitch Organization	Summary
Exposition Theme 1 Group mm. 1-29	mm. 1-4: (015), (0145), (0167) mm. 4-7: (026) mm.8-29: (015), (0145), (014), (0167)	m. 1: (037) major triad mm. 2-4: D major chord in root position mm. 4-7: (026) chords, whole tone collection m. 8-10: (037) mm. 8, 9, 12, 25, 28, 29: pitch D in the bass	(0145), (0167), (026) Major triads (037) D major triads and D in the bass
Theme 2 Group mm. 30-64	mm. 35-42: (0246), (026) mm. 52-53: (015)	mm. 30-31: F-sharp major chord (037) m. 32: F-sharp pentatonic m. 33: A pentatonic mm. 35-36: Parallel major chords m. 41-43: Whole tone collections m. 41: Major chords (037) mm. 56-61: Octatonic Collections (0,1), (1,2) mm. 58-61: Parallel minor chords (037) m. 63-64: (0167) chords	Whole tone, Pentatonic, Octatonic collections (0246), (026) Parallel major and minor triads (0167) Chords
Development mm. 64-99	mm. 64-65: (0145) mm. 64-67: (0167) mm. 78-83: (0246), (026) mm. 84-92: (014), (0145) mm. 98-99: (0167)	m. 68: (026) chords mm. 68-69: Octatonic collection (1,2) mm. 70-77: Octatonic collection (0,1) mm. 78-83: (026) whole tone collection mm. 84-87: major	

		triads (037) mm. 90-91: Octatonic collection (0,1) mm. 94-99: Octatonic (1,2), (0167)	
Recapitulation Theme 1 Group mm. 100-122	mm. 100-102: (05), (0145), (0167) mm. 102-105: (026) mm.106-112: (015), (0145), (014), (0167)	m. 100-102: D major chord (037) mm. 106, 107, 110, 111, 112: D in the bass mm. 112-113: minor triads (037) mm.114-116: Octatonic collection (1,2) mm. 117-122: Octatonic collection (0,1), (026) chords	(0145), (0167), (026) Octatonic collections (1,2), (0,1) D major triads and D in the bass
Theme 2 Group mm. 122-148	mm. 126-127: (0246), (026) m. 138: (0145)	mm. 123-124: D major chord (037) m. 124-125: A pentatonic mm. 126-127: Whole tone collection mm. 128-129: C Pentatonic collection mm. 130-131: F Pentatonic collection mm. 132-134: Whole tone collections Parallel major triads mm. 135-136: Octatonic collections (2,3) mm. 137: Parallel major triads (037) m. 138: B-flat pentatonic m. 139: D-flat pentatonic mm. 140-144:	(0246), (026) D major triad A, C, F, B-flat, F-sharp Pentatonic collections Whole tone collections Parallel major/minor triads

		parallel minor and major triads mm. 142-143: F-sharp pentatonic m. 145: Octatonic (0,1) mm. 146-148: Octatonic (1,2)	
Coda mm. 149-157	mm. 148-151: (0167), (0145) mm. 151-153: (026) mm. 156: (0145)	mm. 149, 150, 151: D major triad mm. 151-154: (026) chords m. 155-156: (0167) chord m. 157: D in all voices	(0167), (0145), (026) D in all voices at the end

Table 4. Structural Elements

As seen in the examples above, the movement is highly integrated, and Desenclos used a few structural elements to organize pitch content. Coherence is obviously an intrinsic aspect of this movement, and Desenclos's style of composition. The movement is not tonal, but he used a method of pitch organization that creates tension, forward motion and coherence. Moreover, variety was consistently created through the subtle alteration of various musical elements.

The idea of creating large, complex works from a relatively small number of resources has been on the minds of scholars and artists since the enlightenment. In the eighteenth century, Johann Wolfgang von Goethe wrote about the theory of plants in his scientific treatise *Metamorphosis of Plants*, which was published in 1790. In this treatise, Goethe described how a complex organism develops from a single source. Artists have applied this idea to their works, and they created coherence by using a single or a few structural elements in their works. Anton Webern and Arnold Schoenberg developed compositional techniques that were inspired by Goethe's concepts. When discussing variation form, Webern stated, "The root is no different from the stalk, the stalk no different from the leaf and the leaf no different from the flower:

variations of the same idea.”¹³ Coherence was achieved by Desenclos through the development of themes, motives and PC-sets that were presented early in the first movement of his *Quatuor*.

¹³ Anton Webern, *The Path to the New Music*. ed. W. Reich, trans. L. Black (Bryn Mawr, PA: Theodore Presser Publications, 1963), 53.

Chapter 4 Texture and Rhythm

Desenclos used imitative counterpoint in a few passages in this first movement. Additionally, some of the imitative passages are as short as one measure and as long as six measures. Measure 11 is part of a transitional phrase that leads to a restatement of theme 1 in measure 12. The (014) PC-set is treated like a motive in this phrase, and it is passed from voice to voice in this measure. The soprano states the motive, then the alto has the motive, and then the baritone follows with the same motive. There is continuous sixteenth-note motion through this entire measure. The tenor does not have this motive because theme 1 is stated in the tenor part at the end of measure 11, see example 26.

m. 11



The image shows a musical score for measure 11, consisting of four staves. The top staff is the Soprano part, the second is the Alto part, the third is the Baritone part, and the bottom is the Tenor part. The time signature is 4/4. The Soprano part begins with a sixteenth-note figure (G4, A4, B4, C5) followed by a quarter rest. The Alto part begins with a sixteenth-note figure (G4, A4, B4, C5) followed by a quarter rest. The Baritone part begins with a sixteenth-note figure (G4, A4, B4, C5) followed by a quarter rest. The Tenor part has a half-note (G4) at the end of the measure.

Example 26. Measure 11: (014) PC-set as a motive

Desenclos wrote phrases with elements of call and response. These sections are not imitative, but two or more voices exchange musical material. An example of this exchange can be seen in the sequential passage from measure 26 through measure 27. In measure 26, the alto begins with a sixteenth-note figure that is then passed to the soprano on beat three of measure 26. When the two voices are not playing the sixteenth-note figures, they have half-notes. This

passage is similar to an imitative passage because of the exchange of related rhythmic material between the alto and soprano voices, see example 27.

mm.26-27
Soprano and Alto



The image shows two staves of musical notation in 4/4 time. The top staff is for the Soprano and the bottom staff is for the Alto. Both staves feature a melodic line with eighth notes and a bass line with quarter notes. The Soprano part has a long slur over measures 26 and 27, indicating a single melodic phrase. The Alto part also has a long slur over the same measures, showing a similar rhythmic pattern. The key signature has one flat (B-flat).

Example 27. Measures 26-27: Call and Response passage

In measures 37 through 40, one can see an example of imitative counterpoint. The imitation in this example is at the octave and separated by a dotted quarter-note. The soprano has the subject on beat one of measure 37. The tenor enters with the subject on the second dotted quarter-note, but down an octave. Desenclos continues the imitation through measure 38, but it changes slightly in measure 39. The soprano continues to have the first statement of the subject, but it is followed by the alto instead of the tenor. The alto has the melody on the second dotted quarter-note in measure 39, also down an octave. This example of imitative counterpoint demonstrates how Desenclos used this compositional technique to organize pitch material in this passage. The imitation ends abruptly in measure 41 with a descending sequential figure in the upper voice and the lower voices have material that is accompaniment.

There is contrast in almost every facet of this movement. This is an example of contrasting textures that are found throughout the movement. There is definite imitative counterpoint in measures 37 through 40, and a clear homophonic texture in the passage that begins in measure 41, see example 28.

mm. 37-41

The image shows a musical score for measures 37-41. It consists of four staves: Soprano (top), Alto, Tenor, and Bass (bottom). The key signature has one sharp (F#) and the time signature is 6/8. Brackets above the staves indicate the melodic subject in measure 37 and its imitative entries in measures 45, 49, and 50. The Soprano part has a complete statement in measures 50 and 51. The Alto part has an incomplete entry in measure 50. The Tenor and Bass parts have entries in measures 45 and 49, respectively. The Bass part has a transposed entry in measure 50.

Example 28. Measures 37-41: Imitative Counterpoint

The same melody that was found in measure 37 returns in measure 45, at the same pitch level. Desenclos creates variety by beginning the melody with the eighth-note figure, which is the second-half of the subject that was seen on beat one of measure 38. Desenclos flipped the subject, and began with the second-half and ended with the beginning. This is example of imitation at the tritone between the baritone and the tenor. However, the tenor entry is different from the previous statement. In the baritone part, the interval between the last note of measure 45 and the first note of measure 46 is an ascending perfect fifth. The interval between the last note of measure 47 and the first note of measure 48 in the tenor part is different because it is an ascending perfect fourth. The entries are two measures apart, and the alto enters with the original subject that was heard in measure 37 on beat one of measure 49. There is a difference with the alto entry, because it is incomplete. The melody in the alto part in measure 50 is different from the subject. This passage demonstrates how Desenclos avoids strict repetition in order to create variety. In the soprano part, there is a complete statement of the two-measure subject, that was first heard in measure 37, in measures 50 and 51. This restatement is different from the original in measure 37 and the previous partial statement in measure 49. The last statement in measure 50 has been transposed up a perfect fifth. In addition, the entries occur quicker at the end of this

phrase, which creates a faster harmonic rhythm, forward motion, and an uneven phrase length. In measure 52, there is a new idea that provides contrast for the end of the theme-2 section.

mm. 45-51

The musical score consists of four staves. The top staff is the Soprano part, the second is the Alto, the third is the Tenor, and the bottom is the Bass. The time signature is 6/8. The key signature has one sharp (F#). The score shows a sequence of notes across measures 45 to 51. A bracket labeled "Different Interval" is placed over the Tenor and Bass staves in measure 49, indicating a change in the interval between the two parts. There are also asterisks (*) above notes in measures 47 and 49.

Example 29. Measures 45-51: Altered Imitative Counterpoint

There is an imitative passage that has paired voices in measures 88 and 89. The soprano and tenor begin with the rising sixteenth-note figure on beat one of measure 88. This two-beat figure is imitated by the alto and the baritone on beats three and four of measure 88. The imitation is two beats apart and down a minor third. In measure 89, Desenclos uses the same material from measure 88, but it has been transposed up a whole step. This entire passage consists of a point of imitation that is part of a sequence that moves up a major second.

Measure 91 has imitation between the three lower voices, and a similar figure in the soprano part. The figures are sixteenth notes that have a duration of one beat. There is only one

measure of this material, and it is followed by a return of the material from measure 88. The imitation in the three lower voices is one beat apart and down a major sixth. The imitation from measure 88 returns in measure 92, but at a different pitch level, see example 30.

mm. 88-89

mm. 91-92

Example 30. Measures 88-89, 91-92: Imitative Paired Voices

Desenclos includes another imitative passage that begins in measure 95, and ends in measure 96. This imitation is at the octave, and the entries are two beats apart. The tenor begins in measure 95, and it is followed by the alto an octave higher. The soprano enters with the subject on the up-beat of beat one in measure 96, an octave higher than the alto. One can see that the final statement in the soprano part is not complete because it leads to a new descending figure in measure 97, see example 31.

mm. 95-96

Example 31. Measures 95-96: Imitative Passage

Measure 97 has another example of paired voices that are continuing with the descending-third figure that was introduced on beat one of measure 97. The alto and tenor are paired in measure 97, which then leads to another paired voice passage in measure 98. One can see that the melodic material is different, but the soprano and tenor are paired and the alto and baritone are paired, see example 32.

mm. 97-98

Example 32. Measures 97-98: Paired Imitation

These paired voices have similar rhythmic motives that are exchanged. The figures are all rising sixteenth-note figures that begin on the second sixteenth note of each beat. This same motivic material and paired voices are found in the next measure. As you can see by large number of

examples of imitation, Desenclos was very interested in counterpoint and the use of imitation. The technique of imitation allows the composer to control the pitch content through these passages. In this case, he is moving between imitative passages to homorhythmic passages.

The Recapitulation begins in measure 100 and many of the imitative passages are repeated at the original pitch level. The imitative passage in measure 109 is virtually the same as measure 11, except for the addition of the soprano harmony part that begins on beat 4 of measure 109. In addition, the imitative passage that begins in measure 128 is similar to the passage that begins on measure 37. The imitation is the same in both passages, but the latter example has been transposed up a minor third. In measure 128, all of the voices enter in the exact same manner as the earlier passage, see example 33. The instruments are paired, and the imitation is at the octave.

The image shows a musical score for measures 128-132, labeled "mm. 128-132" at the top left. The score is written in 6/8 time and consists of four staves. The top staff is in treble clef, and the bottom staff is in bass clef. The middle two staves are also in treble clef. The music features imitative counterpoint, with various melodic lines entering and imitating each other. There are several slurs and ties indicating phrasing and continuation across measures. The key signature has one flat (B-flat).

Example 33. Measures 128-132: Imitative Counterpoint

Desenclos organized pitch material through the use of counterpoint, but he also used parallel motion throughout this movement. One common example of Desenclos's use of parallel motion is found near the beginning of the movement. In measure 8, one can see that the texture is homophonic. The three lower voices are moving in parallel motion with major triads in second

inversion. This parallel motion found in the three lower voices continues through measure 10, see example 34.

mm. 8-10

6
4

Example 34. Measures 8-10: Parallel Second Inversion Chords

The three lower voices have most of the same rhythmic content, and move in parallel motion from measure 2 through measure 10. He is employing parallel major triads, which are (037) PC-sets, as a means of harmonizing the melody. The idea of contrast has been mentioned earlier, and this is another compositional tool that Desenclos used to create variety. One can hear familiar sounding major and minor chords at the beginning. Then in measure 4, the (026) PC-set becomes prominent, and is followed by the parallel major triad passage in measure 8.

There is another passage that contains parallel major chords in the theme-2 section from measures 35 through 36, see example 35.

mm. 35-37

6
4 3 3 6 6 4 4 3

Example 35. Measures 35-37: Parallel Second Inversion Chords

These chords are found in the three lower voices and are in second inversion, exactly like the previous example. The last chord on beat one of measure 37 is different because it is a B minor chord (037) in root position. But, it is preceded by an F-sharp major-minor seventh chord in measure 36. This is another example of Desenclos's use of a homophonic texture that has parallel chords in the lower parts and the melody in the soprano voice.

Measures 41 through 42 have a more disjunct melodic pattern in each of the three lower voices than the example that was found in measures 35 and 36. The lower parts have the same parallel major triads in second inversion that were seen earlier, except for the first chord on beat one of measure 41.

mm. 41-42

The musical score consists of three staves. The top staff is in treble clef, the middle in alto clef, and the bottom in bass clef. All are in 6/8 time. The music shows a sequence of chords in second inversion across two measures. The soprano voice has a more active, disjunct melodic line. A 6/4 time signature is indicated below the bottom staff.

Example 36. Measures 41-42: Parallel Second Inversion Chords

In measures 60 and 61, one will see a variation of the parallel chord passages that were identified earlier in the movement. This example contains parallel minor triads in first inversion in the top three voices, while the baritone plays the tritone interval E and B-flat, see example 31. Desenclos

has changed the chord quality, the voices, the rhythm and the inversion for this parallel chord passage. This is how variety was created from previous musical material.

The passage from measure 78 through measure 83 is an expansion of the material found in the passage from measure 41 through 42. Desenclos transposes the previous material a major third higher in measure 78. The two passages are essentially the same because the parallel major chords in second version are in the three lower voices and the soprano has the melody. In the Recapitulation, the same parallel major chords return in the repeated sections. For example, Measures 106 through 109 are exactly like measures 8 through 10. In addition, the accompaniment in measures 132 through 134 is derived from the parallel chord passages found in measures 41 through 42 and measures 78 through 83. However, the length of each of these passages is different, see example 37.

mm. 132-135

6
4

Example 37. Measures 132-135: Parallel Second Inversion Chords

Near the end of the movement, one can see another example of parallel major triads in the three lower parts, but there is not a melody above these chords in measure 141.

m. 141

6
4

Example 38. Measure 141: Parallel Second Inversion Chords

In addition to the parallel major triads, there are some examples of parallel sixths, and thirds or tenths throughout the movement. Parallel sixths and thirds occur in the passage that begins in measure 52 and ends in measure 57. This is related to the previous examples of parallel major triads, however, in these examples the chords are not complete triads. The soprano and the alto have parallel major sixth intervals through measure 52. In measure 53, the soprano and the tenor has parallel major sixth intervals. This passage has continuous sixteenth notes throughout, but the sixteenth-note figures change. Moreover, the sixteenth-note figures are not always harmonized with parallel motion. In measure 54, the alto and the tenor have a new melodic figure that moves in parallel minor thirds. The last example of paired voices that move in parallel motion is found in measure 57. In this passage the soprano and the tenor are paired, and they move in parallel minor tenths and major sixths, see example 39.

mm. 52-57

The musical score consists of two systems of four staves each. The first system (measures 52-57) features a complex texture with multiple voices. The top two staves are in treble clef, and the bottom two are in bass clef. The key signature has one sharp (F#). The time signature is 6/8. The first system includes markings for intervals: 'M6' (Major 6th) in the first two staves, and 'm3' (minor 3rd) in the third staff. The second system (measures 58-63) continues the texture, with markings for 'm10' (minor 10th) and 'M6' (Major 6th) in the second staff.

Example 39. Measures 52-57: Paired Voices in Parallel 3rds, 6ths, and 10ths

There is another example of parallel paired voices in measures 88 and 89. In this passage, the paired voices are moving in parallel major thirds. The soprano and the tenor are paired for beats one and two of measure 88, and the alto and baritone are paired for beats three and four of the same measure. In the next measure, the voices are paired in the same way, but this is a sequential passage because the pitches are a whole-step higher than the previous measure. These examples of parallel motion are related to the frequent use of parallel triads throughout the piece. This was another technique that Desenclos used to create coherence in the movement.

Coherence is achieved by repeating rhythmic figures throughout the movement. Variety is created by the subtle changes in the rhythmic figures that move the music forward and provide tension. In the following paragraphs, one will see how rhythm, meter, and tempo play an important role in the overall organization of the movement.

Desenclos changed meters throughout the movement, and moving from a simple meter to a compound meter signifies important formal divisions. For example, the first theme section has many meter changes, but they are all simple meters. However, the meter changes to a compound meter with an eighth-note that is the same as the previous meter when the second theme is introduced. The theme-2 section is completely in a 6/8 meter, which makes it feel more stable than the previous section. This change in stability and motion from a simple to a compound meter is a technique that Desenclos used to change the mood of the movement and provide contrast. Each of the themes can be identified by looking for their correlating meter.

The movement begins in a 3/4 meter, but the meter changes to a 4/4 meter in measure 4. Desenclos alternates between 3/4 and 4/4 meters frequently in the first 9 measures of the movement. This changing meter at the beginning of the movement, creates a sense of instability and complexity for the first section of this movement. At the *Tempo Primo*, in measure 12, the meter remains in 3/4 until measure 26. However, the last four measures of the theme-1 section are in a 4/4 meter. The opening section moves from an unstable feeling, that was created by a changing meter, to a more stable sound towards the end because of the more consistent meter.

The theme-2 section is metrically stable in comparison to the theme-1 section. In measure 30, the meter changes to a 6/8 meter, and it remains in 6/8 until measure 63. The second theme group begins in measure 30 and is signified by the change from a duple meter to a compound meter.

In the development section, the alternating 3/4 and 4/4 meters return, but there is a passage in a 6/8 meter from measures 78 through 83. This section contains material from both theme 1 and 2, which includes meter. In addition, the Recapitulation, that begins in measure 100, has the same meter changes found in the Exposition. There is a metrical anomaly near the end of the movement. In measure 153, there is a change from a 3/4 to a 2/4 meter, for just one measure. The meter immediately returns to 3/4 in measure 154, and the meter remains consistent until the end of the movement. These changes in meter are an intrinsic feature of this movement that creates contrast and signifies formal divisions.

Desenclos changed the rhythmic nature of the sections of this movement. Contrast was created by using primarily sixteenth-note figures in the theme 1 group, and eighth-notes figure in the theme 2 group. Moreover, the theme 1 material has more syncopated rhythms, and the theme 2 material has less syncopation. These basic rhythmic differences between the theme 1 and 2 groups can be seen in the examples above.

Many of the melodic phrases in this movement begin with an anacrusis, which creates a sense of instability. At the beginning of the movement, the meter is obscured by the anacrusis and syncopation. The 3/4 meter is eventually established in measures 2 and 3. This type of syncopation is common in the theme 1 section of this movement. The syncopation and the various entrances on the weak parts of the beat provide an element of instability, excitement, and forward motion. Jazz music is also very syncopated, and the weak part of the beat is usually accented. In addition, many jazz melodies enter on the weak part of the beat. This is one of many aspects of Desenclos's style that suggests the influence of jazz.

CHAPTER 5

Performance Application

There are not many analytical resources to help performers with the preparation of a saxophone quartet. Most groups, especially student groups, rely on an experienced performer to help with the preparation of a piece. Most experienced performers can make musical decisions based on what they are hearing, but they may not have a complete understanding of how the piece is organized. The results of this study can serve as a guide for performers. This study highlights the structural elements of the first movement of Desenclos's *Quatuor pour Saxophones*. Some of the elements may be obvious to an experienced musician, such as thematic material and formal divisions. But, many of the more complex relationships found between form, melody, texture, pitch organization, and rhythm may not be easily identifiable. Knowledge of these deeper structural elements in the movement could assist in achieving a more thoughtful and authoritative performance of this movement. One page of the score has been annotated with performance suggestions, see Appendix 1.

Character and phrasing are important aspects of any musical performance. These aspects of performance in this movement are related to the formal divisions. The general character shifts in the movement are related to the formal sections, changes in meter, themes, pitch organization and the degree of dissonance. The character of theme 1 is more abrasive, and aggressive, in comparison to the tranquil theme 2. Most of the melodic content in the theme 1 group has sixteenth-notes, and disjunct or arpeggiated melodic figures. In addition, the harmony contains more stark dissonances than the theme-2 section. All of these features create a compelling opening section that draws in the listener. The performers need to understand the general character of theme 1, and try to convey this character to the listener. This can be achieved by following all of the sudden shifts in dynamic level indicated in the score. For example, the

movement begins at a forte dynamic level that immediately decreases to a piano dynamic level in the three lower parts by measure 2. Moreover, all of the rising and falling melodic figures can be clarified by adding a slight crescendo when the figure is descending, and push toward the arrival point. This slight push, with air, while playing the descending lines will help clarify the phrases, and create forward motion. The long notes can intensify through a slight crescendo and the use of vibrato.

The character of the theme 2 group is much more tranquil, and expressive than the theme-1 group. Desenclos achieves this by changing the meter to 6/8 in measure 30, and the most common note value is the eighth-note. In general, the note values in the second theme section are longer, which creates a character that is more expressive and songlike. The performers should strive to make this section lighter and more expressive than the first theme section. This can be achieved by using more vibrato on long notes, and feeling the larger beat. The larger beat is the dotted-quarter note or possibly feeling the entire measure in one beat. This will create a smoother performance of the music, and avoid emphasizing the quarter-note or eighth-note, which can make the phrases sound choppy. In addition, the dynamic level is much softer than the theme-1 section, and it does not have the same sudden changes in dynamic level. In general, the second theme group section should be performed slower, softer, smoother, and more consistently than the first theme group.

In the Development section, the performers must know when material derived from themes 1 and 2 returns. The ensemble should perform all of the recurring musical material in the appropriate style and character. When the Recapitulation begins, all returning material should be played in the same manner as the original statement in the exposition.

Phrasing in this movement is interesting, and it is also related to the form and character of the piece. The phrasing is irregular in the first theme section in the exposition, and the phrases are continuous. For example, the first phrase begins with theme 1 at the end of measure 1 and it continues until measure 11. At the end of measure 11, the tenor begins a restatement of theme 1. Prior to measure 1, there are no clear cadence points, so the ensemble must maintain the intensity of the music, and push toward measure 6 because it is marked forte. After measure 6, there is a long decrescendo that to the end of the phrase in measure 11 at a piano dynamic level. By changing dynamic level and maintaining the intensity of the air, at all dynamic levels, the ensemble will provide forward motion through the phrase. Most of the transitional measures connect phrases with contrapuntal writing and a ritardando. Performers need to clarify these formal elements by knowing exactly where each phrase begins and ends.

In the second theme section of the Exposition, the phrases are generally long. The first phrase in the second theme section begins with a statement of theme 2 in measure 33. This phrase is long, and it has continuous rhythmic motion. If the melody in the soprano part has a break, the lower voices continue the rhythmic motion. For example, in measure 36, the soprano part has an eighth-note rest, but the lower voices continue with their ascending and descending figures. This could be viewed as a short four-measure phrase that is elided with the next phrase. The next phrase begins in measure 37, and it continues until the end of the of the section at measure 64. There are different melodic ideas in this long phrase, but they are all connected. The performers should follow the dynamic markings in the score, in order to create forward motion. Measure 37, begins at a pianissimo dynamic level that builds to a forte at measure 41. The ensemble must increase the intensity throughout this passage and make measure 41 sound like a point of arrival. The ritard has been used to indicate the end of a phrase for most of the

movement. In this passage the rhythmic motion is continuous, and the baritone picks up the theme at the end of measure 44. At measure 45, the original tempo returns and a contrapuntal passage begins. There is another crescendo from piano in measure 45 to a forte in measure 52. In measure 52, a new musical idea begins, but all of these passages from measure 37 through measure 52 are connected by continuous rhythmic motion in all of the parts. The dynamic levels change relatively quickly from forte in measure 52 to piano in 54 and then back to forte at measure 56. This is followed by another decrescendo to piano in measure 60 and a final push to forte in measure 62 to end the second theme section of the Exposition. The performers must follow these changes in dynamic level to create a musically compelling phrase. This is necessary to make these long phrases interesting. One can create an exciting performance by dynamic contrast, shaping the melody through pushing to arrival points, and maintaining intensity through the end of the phrase.

Much of the material for the remainder of the movement was presented earlier, and the same ideas presented above should be applied. The important concept about phrasing is that the indicated dynamic changes should be followed, subtle crescendos and decrescendos should be applied to melodic contour, and maintain intensity through the end of phrases by pushing toward arrival points. All of these performance ideas will assist in creating a more cohesive and compelling performance of the unusual phrasing in this movement.

Performers should be aware of and emphasize the structural melodic elements. This brings out the intrinsic coherence that Desenclos created through the use of a small number of structural melodic elements. These melodic elements, such as themes, and motives, should be emphasized by the performers. This can be achieved by the proper balance of the parts, and the

important features should be performed at a louder dynamic level than the accompaniment material.

In a complex piece, it is often difficult to discern which part is important, and many times the important aspects of the music are masked by accompaniment figures. If the structural elements are covered by the other parts, it is difficult for listeners to identify the structural features of the work. Through analysis, one can understand how a musical work is organized, and the analysis provides information about the structural musical elements for the performers. Currently, there is very little in-depth analyses of solo or chamber works for the saxophone. This is a common problem with twentieth-century woodwind chamber pieces like Desenclos's saxophone quartet. Frequently, the background parts are too loud, and it is difficult to hear the thematic material. This study can be used as a guide that points out the structural melodic and harmonic elements in this movement.

In addition, there are a few structural PC-sets that were used throughout the first movement of this work that should also be emphasized by the performers. This is more difficult than the emphasis of themes because PC-sets are not always used as motives. Related PC-sets may sound completely different, even though they are the exact same PC-set. Performers should know that these PC-sets are structural, and that they provide coherence. This will allow the performers to make informed decisions about balance among the ensemble parts. Melodic examples of the PC-sets that are more like motives are relatively easy to emphasize because they are part of a theme or repeated melodic idea. The PC-sets that are more obscure should be emphasized to create coherence. For example, the (014) PC-sets at the end of measure 9, and in measures 10 through 11 should be brought out because they are related to the important (0145) PC-set. In measure 26, the soprano part has a sixteenth-note figure that begins with an (0145)

PC-set that sounds different than the original. These versions sound similar, but they are different from the (0145) PC-set that was found in the first theme section. The different (0145) PC-set in measure 26 should be emphasized, by shaping the line with dynamic changes and playing it louder than the accompaniment, because it is directly related to the melodic material from theme 1. There is an example of an (0167) PC-set arranged as a chord in measure 63. This PC-set is used melodically and harmonically throughout the movement. It is presented melodically in measures 98 and 99, but it appears at the end of the movement in the chord in measure 155. Performers should know that these three points in the movement are related by the (0167) PC-set, and it should be emphasized each time it appears. Moreover, all of the structural PC-sets, such as (0145), (026), and (0167) should be emphasized throughout the movement to create coherence.

Performers should emphasize the D major triads, (037) PC set, that are found throughout the theme 1 group. As stated in chapter 5, the pitch D and the D major chord are important structural elements throughout the movement. These various occurrences of the pitch D in the baritone part and the D major chord should be emphasized to connect these elements for the listener. The first D major chord appears on beat one of measure 1 and there is another one on beat one of measure 2. At the return of the theme at measure 12, there is a D in the baritone part. There is another D major chord on beat one of measure 25 and a final appearance in measure 29, which is the end of the first theme section. The Recapitulation returns at measure 100 and there is another D major chord on beat one of measures 100 and 101. The same chord appears with the return of theme 1 at measure 149 and the last pitch played by all of the saxophones in octaves is D. The importance of D in the overall design of the movement should be known by the

performers and emphasized by them as well. One can associate the pitch D and the D major chord with the theme-1 group, and it creates a sense of closure at the end of the movement.

The ensemble should strive for clear imitative entrances, and emphasize repeated motivic material. There are several passages that use counterpoint to organize the pitch content and the performers should make this contrapuntal material very clear for the listener. It is common for the voices that do not have the imitated subject to cover the imitative entries. When the imitative entries are covered, the counterpoint can get lost, and the listener does not even realize that the passage is contrapuntal. The imitative passage from measure 38 and 41 is a good example of the need for proper balance between the parts of the ensemble. There is another imitative passage that begins in measure 45 that begins in the baritone part, and moves up through all of the voices. The subjects should be performed slightly louder than the accompaniment material in the other voices. This should be obvious for performers, but some groups may not identify the imitation, and could inadvertently emphasize the accompaniment rather than the subject.

Two additional structural musical elements are tempo changes and syncopated rhythms. The transitional passages throughout the movement are interesting because each has a ritardando, and the voices are exchanging similar figures. Then there is a return to the previous tempo at the beginning of the next phrase. One can find these transitional passages at measure 11, 32, 44, 99, 109, 123, and 148. Each one of these transitions is one measure in length. These transitions are remarkable, and they have an emotional impact on both the performers and the listener. Performers of this movement should strive to create seamless transitions between phrases. This will keep the phrases moving forward by maintaining the continuous sixteenth-note motion. The most difficult aspect of these passages is the tempo changes and the continuous sixteenth or eighth notes that are passed between voices. Desenclos used these tempo changes to signify the

end of phrases and formal sections. Moreover, they are part of his overall concept of variety that has been applied to all of the musical elements in this movement.

Syncopated rhythms are a fundamental aspect of this movement and Desenclos's compositions. As stated earlier, this is related to jazz and the French idea of finding inspiration in everyday music. In this movement, most of the melodic entrances begin on an upbeat, sixteenth notes are frequently organized in groups of three, and rhythmic accents are placed on weak parts of the beat. All of these syncopated rhythmic elements create an unstable rhythmic style, especially in the theme-1 sections of the movement. These syncopated rhythms are related to jazz music. The performers of this work should be aware of these jazz-like rhythms. To convey the rhythmic style of Desenclos's music, one must exaggerate any marked accents and syncopated rhythms. For example, the passage from measure 68 through 73 has several accent marks in each of the parts. The weak beats are accented, as in jazz, and the three-note sixteenth-note groupings are accented. There are more examples of accented dotted-rhythms in measures 90, 93 and 94. In addition, there is an accent on the chord that begins on the upbeat of beat one in measure 155. This should be an exaggerated attack followed by a slight decrescendo, and then a crescendo to beat 2 of measure 156. All of these rhythms, that are often dotted rhythms or sixteenth notes, must be performed accurately, and all of the parts must align rhythmically. However, there are not any actual jazz swing rhythms in this movement, but the syncopated rhythms and accents should be exaggerated. Rhythmic complexity is another aspect of this movement that makes it compelling and exciting.

There is one other aspect of this movement that the performers must be aware of while rehearsing this movement. They must focus on intonation while performing the passages that contain traditional tertian chords, 3rds, and 6ths. The movement is not tonal, but there are several

major and minor chords throughout the movement. Performers can forget about tuning the traditional chords because of the prevalent dissonance between the melody and accompaniment. Since much of the movement contains dissonant harmonies, it can be difficult to tune the perfect fifths, 3rds, and 6ths, especially for less experienced saxophonists. The ensemble should always concentrate on intonation, and maintaining a consistent pitch. All of the passages that contain parallel major chords need to be in tune.

The purpose of this study is to provide a detailed analysis of the first movement of Desenclos's *Quatuor pour Saxophones* for performers. With this study, one can make informed musical decisions based on the musical content of the work rather than using recordings or simply a cursory study of the movement. Performers may not capture the complex melodic, harmonic, and rhythmic relationships in the work without knowledge of the structural elements of this movement. All performers should have a good understanding of the structural aspects of any piece that they will be performing. Creating a truly musical performance of a particular piece is easier to do when one understands how it is organized.

CONCLUSION

Alfred Desenclos composed an opening movement for his *Quatuor pour Saxophones* that is highly integrated, and it contains complex melodic and harmonic relationships. Coherence is an aspect of this movement that is most important for performers to comprehend. Performers should know all of the structural elements of the movement such as themes, motives, and PC-sets. Coherence of the movement during a performance can be achieved by highlighting its structural elements.

Contrast and variety are guiding principles throughout this movement. Desenclos made subtle changes to the musical elements of the movement, especially melodic and harmonic material, without straying far from the musical material presented in the exposition. Desenclos never leaves the aggressive, dissonant, and continuous sixteenth-note sound of the theme-1 group when related material is presented. Moreover, he returns to the cantabile, harmonically stable sound of the second-theme section when he composed related material. Throughout the movement, the two moods created by the theme 1 and theme 2 material remain consistent in spite of the subtle changes made to their melodic and harmonic elements. In addition, the music in this movement has an intrinsic teleology that is created by the subtle melodic and harmonic variety, driving melodic material through repetition, and overall coherence of the musical material. The balance that Desenclos achieved between repetition and variety is a wonderful aspect of this movement. One can say that the balance between repetition and variety, and the teleology found in the phrases makes this a compelling movement.

The importance of knowing how this movement is organized is an essential step in preparation for its performance. This analysis of the first movement of Desenclos's *Quatuor pour Saxophones* is only part of a larger project that aims to provide performers with an

analytical guide that can be used while preparing for a performance of this work. This analytical research will continue with the remaining movements of the piece. Eventually, an analysis of each movement will complete this project, and hopefully assist in the understanding of Desenclos's complex work.

This movement is part of a work that is satisfying, beautiful and complex. It is one of Desenclos's best known and frequently performed composers in the saxophone community. However, little has been written about him or his works. There is a need for more research on works for the saxophone and the composers who wrote these works. This research must include analytical and historical information for the academic community and the performance community. The saxophone has become one of the most popular and respected instruments in the world. There is a need for high-quality research on music for the saxophone, and everyone would benefit from the knowledge gained from further research.

Appendix I
Annotated Score

Alfred Desenclos

C Score

Musical score for Soprano Saxophone, Alto Saxophone, Tenor Saxophone, and Baritone Saxophone. The score is in 4/4 time and consists of 14 measures. The key signature has one sharp (F#). The score is annotated with measure numbers in boxes: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and 14. Dynamics include *f*, *p*, *mf*, and *dim.*. The score is divided into four systems of four staves each. The first system (measures 1-4) includes dynamics *f* and *p*. The second system (measures 5-8) includes dynamics *mf* and *f*. The third system (measures 9-12) includes dynamic *mf*. The fourth system (measures 13-14) includes dynamic *dim.*. The score features various rhythmic patterns, including eighth and sixteenth notes, and rests.

Appendix 1 Cont'd

1. The baritone has the (015) PC-set. The baritone should be louder than the other parts above it in measure 1. The decrescendo should lead to beat 1 of measure 2.
2. Theme 1 should be played louder than the accompaniment. There should be a slight crescendo on the long notes and a decrescendo on beat 4. The descending lines in measure 3 should also have a slight crescendo.
3. Theme 1 should still be louder than the accompaniment. The descending figure on beat 4 of measure 2 should crescendo to beat 1 of measure 3.
4. This is the third statement of the D major triad in root position. Each repetition should be louder than the previous statement.
5. This is a restatement of the beginning of Theme 1. It should be louder than the previous statement and played like the original statement.
6. The accompaniment should be performed at a lower dynamic level than the soprano part. This entire passage should have a long crescendo to measure 7.
7. Each three-note group, (026) PC-set, should be emphasized with a subtle accent. There is a crescendo from measure 4 through 6.
8. This is a continuation of the previous (026) PC-set passage. The soprano part should be louder than the accompaniment.
9. This melody is related to Theme 1. It should be performed like the original Theme 1 statement.
10. The soprano should be louder than the accompaniment. This is a parallel major chord (037) PC-set passage. There should be a crescendo to beat 2 and decrescendo to beat 3. The performers can emphasize the sixteenth-note motion in this passage. These major chords must be in tune, especially the perfect fourths.
11. This is the second part of the altered Theme 1 melodic idea. The crescendo and decrescendo are related to the performance of the original Theme 1 statement.
12. These are parallel major triads that must be performed in tune. The sixteenth notes should crescendo to the down beat.
13. The soprano part has the (014) PC-set. There should be a crescendo on the long notes, and a subtle accent on the three-note sets. The diminuendo is in the original score.
14. The sixteenth notes should crescendo to the down beat. These are parallel major triads that must be in tune. The performers should follow the indicated diminuendo.

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ABSTRACT

The purpose of this research project is to provide performers with a detailed analysis of the first movement of Alfred Desenclos's *Quatour pour Saxophones*. This study illustrates the intricacies of the piece, which will enhance the performance of this movement by providing the performers with a deeper understanding of how the movement is organized. It is difficult to find a detailed analysis of a work for saxophone or saxophone quartet. Most analyses of pieces for the saxophone only examine a few musical elements, they are generally not a comprehensive examination of the work.

In this study, one will find a detailed description of the composer's life, history of the piece, form, melody, pitch organization, and rhythm. The paper will conclude with a performance application of the results of the analysis in order to yield a more informed and nuanced performance of the movement. Desenclos was a meticulous composer who was very interested in coherence, and he used rigorous compositional techniques that are modern, but he still includes some traditional musical elements. This piece is not tonal because it does not have a traditional key area or tonal center. Desenclos does include some traditional harmonic progressions, bass motion and chords, but this movement is not tonal. He is organizing the musical material through the repetition of intervallic content, themes, motives and rhythms.

This project is needed to help performers, but also to promote the music of Desenclos. He was an accomplished composer who held a prominent teaching positions in France. However, there is not much information about Desenclos or his compositions in scholarly literature. This is unusual because his music is popular, and his saxophone pieces are frequently performed and recorded.