COOPERATION AND OTHER UNIFYING PROCESSES IN ELLIOTT CARTER’S ESPRIT RUDE/ESPRIT DOUX TRILOGY

by

Claire Arthur

This thesis is submitted in partial fulfillment of the requirements for the degree of

Master of Arts
in
The Faculty of Graduate Studies
(Music)

The University of British Columbia
(Vancouver)

August 2008

© Claire Arthur, 2008
ABSTRACT

Elliott Carter frequently organizes the formal design of his compositions with long-range polyrhythms, such that different parts of the texture move at different, slow tempi, often arranged so that their beats coincide exactly twice, at the beginning and the end of the piece. Many theorists have commented on these tempo ratios, and pointed out how they are manifested, on a smaller time scale, in each instrument’s notated beat divisions. However, building on the work of Link and Roeder, this paper shows that in Esprit Rude/Esprit Doux, Esprit Rude/Esprit Doux II, and Retrouvailles, pieces Carter dedicated to Pierre Boulez, the polyrhythms also guide the interactive behaviour of the instruments. Furthermore, it shows that although these works are all independently complete and coherent, together they can be understood as three movements of a trilogy, whereby the progression from simultaneous melodic parts that run independently of one another in Esprit I to the near-monophonic melody lines in Retrouvailles, as well as the increase in cooperative activity (for example, melody-sharing, and the mutual building of important harmonies) represent a theme of growing reconciliation.
Table of Contents

Abstract ..............................................................................................................ii
Table of Contents ............................................................................................iii
List of Figures ....................................................................................................iv
Acknowledgements ........................................................................................... vi
Chapter 1, Introduction ....................................................................................1
Chapter 2, Esprit Rude/Esprit Doux .................................................................7
Chapter 3, Esprit Rude/Esprit Doux II ...............................................................43
Chapter 4, Retrouvailles ..................................................................................71
Concluding Remarks .......................................................................................90
Works Cited ......................................................................................................93
List of Figures

Chapter 2

Fig. 2.1 – Locations of pulses and sub-pulses

Fig. 2.2 – Carter’s notated beat divisions

Fig. 2.3 – Rude versus Doux articulations

Fig. 2.4 – Role switching between flute and clarinet

Fig. 2.5 – Clear articulation of sub-pulses

Fig. 2.6 – Chain of AITs

Fig. 2.7 – Change of sub-pulse rate in clarinet

Fig. 2.8 – “A-material”

Fig. 2.9 – Second AIT chain

Fig. 2.10 – Palindrome borders

Fig. 2.11 – Imitative gestures

Fig. 2.12 – Transition in m. 76 and 12-tone chord

Fig. 2.13 – Sub-pulses and subdivisions

Fig. 2.14 – Statements of the Boulez motto

Fig. 2.15 – Form chart

Chapter 3

Fig. 3.1 – Initial AIT and exact imitation

Fig. 3.2 – Opening ATHs

Fig. 3.3 – 0167s combine to make 12-tone chord

Fig. 3.4 – Changing intervals create counterpoint

Fig. 3.5 – Shift from trichord to tetrachord to ATH
Fig. 3.6 – Marimba pulse cues.................................................................59
Fig. 3.7 – Diagram of 0167 chain and CUP.................................................60
Fig. 3.8 – Flute and clarinet imitation.........................................................62
Fig. 3.9 – Harmonic cooperation..............................................................64
Fig. 3.10 – Gradual ATH overlap............................................................65
Fig. 3.11 – ATH chains and marimba “chimes”.........................................68

Chapter 4

Fig. 4.1 – Trichordal breakdown of introduction.....................................74
Fig. 4.2 – Paindrome around C5 in m.6.....................................................75
Fig. 4.3 – Recurring tetrachord motive....................................................77
Fig. 4.4 – B3’s thrice return.................................................................78
Fig. 4.5 – Left hand’s ascent back into upper registers.............................79
Fig. 4.6 – 12-tone all-interval chord #1.................................................81
Fig. 4.7 – 12-tone all-interval chord #2..................................................83
Fig. 4.8 – 12-tone all-interval chord #3..................................................85
Fig. 4.9 – Simultaneous 0146 tetrachords.............................................87
Acknowledgements

I would like to thank Dr. John Roeder, my thesis supervisor, for all his help and attention to detail throughout all the many revisions that came before the final version of this paper.

I would also like to extend my thanks to:

Dr. Richard Kurth, who helped revise my paper on personal time so that I might be able to hand it in before the deadline.

Marguerite Boland, who scanned her thesis papers one at a time, to help out an unknown foreign graduate student.

Finally, to Mark Sallmen, who ignited my interest in Elliott Carter’s music many years ago in an undergraduate classroom at the University of Toronto.

Chapter 1: Introduction

The present study began, quite simply, as an analysis of the three compositions that Elliott Carter dedicated to Pierre Boulez for his 60th, 70th, and 75th birthdays. I focused my research on the genre of chamber music, as it seemed to offer the greatest insight into Carter’s compositional world. Chamber music possesses an optimal instrumental density—less complex than orchestral pieces, but allowing for more varied textures than solo works—that allowed me to focus more carefully on the instruments’ interactions, and the underlying harmonic and rhythmic devices. Furthermore, the different timbres of the instruments lend themselves well to personification, a technique that Carter uses frequently in his compositions, as he tends to exaggerate the characteristic sound, or “personality” of each instrument, juxtaposing each against the other. Also, critics and theorists have remarked on an increased refinement and clarity in Carter’s post-1985 works, and these three, since they are explicitly related, offer a good opportunity to study whether and how this is so. Of this group of pieces, only the first, *Esprit Rude/Esprit Doux*, has been given much analytical attention.

The first two pieces were given the same title, *Esprit Rude/Esprit Doux* followed by *Esprit Rude/Esprit Doux II* (henceforth Esprit 1 and Esprit 2) and were both written for small ensemble, including flute and clarinet in both cases, as if they were a kind of exploration of breathing and articulation (*Esprit Rude/Esprit Doux* means “rough breathing/smooth breathing”). The third piece, *Retrouvailles*, at first glance appears quite different and even unrelated to the Esprit pieces, because it is much shorter, and because it is written for solo piano, and thus lacks the playful rapport between instruments that occurs in the first two pieces. Nor does a solo piano work easily
distinguish different parts at varying tempi, like the different timbres in the first two pieces can more readily do. But on closer inspection, it uses many of the same formal devices, and is organized like the others into small, phrase-like sections that are differentiated by changes in texture and rhythm. Also, the 4-note motive \(<B_b, C, A, E>\), appears in all three pieces. In the program notes for the first two pieces, Carter points out this motive, explaining how it combines French and German spellings of the note names to spell out the name Boulez, the piece’s dedicatee.\(^1\) In the program notes to the piano piece Carter alludes to this motive's unifying properties: “Retrouvailles begins by recalling the end of Esprit Rude/ Esprit Doux II and ends by recalling the opening of Esprit I.” This is since, as will be shown, the motive’s presence is most salient at the opening or ending of each piece. This thesis will also examine the other devices, processes, and materials (aside from this 4-note motive) that unify these three pieces.

Much of Carter’s own writing, as well as many articles written by Carter scholars that explain some of his more common compositional techniques, were invaluable for the present study.\(^2\) Although there is some existing literature on the topic of Esprit 1, there is virtually nothing written on Esprit 2 or Retrouvailles, meaning that many of the conclusions to be drawn here are taken from observations in my own research and analysis.\(^3\) However, since it is well known that Elliott Carter is interested in complex notions of time, finite combinatorial possibilities of various pitch configurations, and the

---

\(^1\) The motto, \(<B_b,C,A,E_b>\) spells “Boulez” with the German note name for Bb <B>, the French (or technically Latin) <Ut> (standing for C) and <La> (that is, A), and German <E> (and adding the missing “z”). This is explained in the composer’s score notes in all three pieces.


\(^3\) For a discussion on the “tranquillo section” in Esprit 1 and the perceptibility of the pulses, see Link 1994, 66-67. For summaries of the Boulez motto, polyrhythmic ratios and intervallic partitioning in Esprit 1, see Schiff 1988 and Schiff 1983. For a general overview of Esprit 1 and some of the basic processes in it, see Truniger 1998. Esprit 2 is mentioned briefly in Schiff 1998, 148-9.
potential for music to refer to human social interaction, these aspects were the primary focal areas while researching a unifying theme for the three pieces.

Carter’s systematic approach to pitch-class structures is well known, especially since the publication of his compositional toolbox-turned-long-term-project, entitled “Harmony Book”, in which he systematizes every possible combination of pitch classes, intervals and chords within the twelve-tone system (Carter 2002). This book contains the building blocks that Carter explores when composing. John Link, who wrote an introduction and commentary for Carter’s book, stated in a postscript to one of the interviews contained therein:

“Not long after this conversation I was surprised to receive a large package in the mail from Elliott Carter. It contained the most recent edition of the Harmony Book, with numerous handwritten corrections. That he would so casually send his personal copy I took as further evidence that the Harmony Book no longer played an active role in his composing. But a week or two later I got a phone call from Mr. Carter asking me to send it back as soon as possible. ‘I’d forgotten how much I depend on it,’ he said” (Link 2002: 35).

Carter is particularly fascinated by sets which are the most diverse in subset content, such as the two types of All-Interval-Tetrachords (henceforth AITs), set classes 0146 and 0137, which contain one instance of every interval class, and the All-Trichord-Hexachord, (henceforth ATH) set class 012478, which contains at least one instance of each of the twelve trichordal set classes.

Elaborate harmonic schemes are not the only thing that Carter plans out in advance of a composition. His works are filled with frequently changing time signatures and metric modulations, whereby the duration of one note value in a previous tempo is made equivalent to a new note value in a new tempo, much in the same way that a single harmony may act as a pivot between two keys. Although many musicians have since (and previously) used this technique, the New Grove Dictionary of Music and Musicians
credits Carter with the development and definition of the concept. Often, these changes in tempo affect only one player at a time, as Carter tends to assign a different tempo to each instrument or group of instruments in an ensemble. He has done this in the majority of his non-solo works over the past thirty years. Typically the different speeds of the instruments are not arbitrary, but are intricately planned out as a “long-range polyrhythm” that acts as the formal scaffolding for the piece. In an interview from 1971, Carter states

“...one of the things I became interested in over the last ten years was an attempt to give the feeling of both smaller and larger-scale rhythmic periods. One way was to set out large-scale rhythmic patterns before writing the music, which would then become the important stress points of the piece, or section of a piece. These patterns or cycles were then subdivided in several degrees down to the smallest level of the rhythmic structure, relating the detail to the whole” (Link 1994: 3).

Such is the case for the first two compositions analyzed in the present study: Esprit 1 and 2.

Although Carter has worked out many systematic possibilities for pitch-class and rhythmic structures, they are hardly prescriptive. Each piece still involves unique materials. What principles, however, govern his selection from his sound universe of the particular events of each piece? I believe one clue lies in Carter’s preoccupation with music as a metaphor for human relationships. In Frank Scheffer’s documentary about Elliott Carter, entitled “Labyrinth of Time,” Carter says:

“I think my own music is a picture of society as I hoped it would be; as I hope it will be. That is, there are a lot of individuals dealing with each other, sensitive to

4 “Rhythm, §I, 7: Fundamental concepts & terminology: Complex rhythms and complex metres”, Grove Music Online ed. L. Macy (accessed 13 June 2008), <http://www.grovemusic.com>. N.B.: both Brahms and Schumann, for example, used metric modulation, but not to the same degree of rhythmic complexity as seen in Carter’s music, nor did they label their metric modulations above the bar, as Carter does.

5 For an overview of the development of Carter’s rhythmic techniques, and specific analyses, see Jonathan Bernard 1988.

6 An in depth discussion of long-range polyrhythms may be found in Link 1994.
Each instrument naturally has its own unique sound that sets it apart from the other instruments, and a set of abilities defined by the construction of the instrument. For example, wind and brass instruments typically produce a single pitch at a time, whereas strings can play up to four, and piano and percussion instruments can play even more. When Carter writes for small ensemble, he typically emphasizes each instrument’s distinctiveness by assigning it a particular tempo, meter, and set of intervals. In addition, by “personifying” the instruments in this way, he makes each musical line represent an action or narrative. This appears to be the case in Esprit 1 and 2, as the instruments seem to be conversing, and debating with one another. Scholars have often interpreted Carter’s scores as a conversation, argument or a debate of an idea or theme. Charles Rosen comments on how in Carter’s Piano Concerto (1964) “the piano was meant to be the individual and the orchestra the sort-of-mass, and the piano won out” (Scheffer 2004). Mark Sallmen (2007) argues that in Carter’s piece In Genesis, focal pitches represent the dichotomy between divinity and humanity. And John Roeder posits that in Enchanted Preludes the interaction of the cello and flute portrays a dialogue between a married couple, with the autonomy of the instruments and their unique characteristics representing each member of the couple’s individuality, while the interaction between parts displays a discourse with cooperative and argumentative elements (Roeder 2006: 377-414). Even Carter himself describes his brass quintet (1974), using such anthropomorphic descriptive words as “disruptive” and “menacing” to illustrate a debate between the instruments on how the music should proceed! (Carter 1997: 258)
With this in mind, I will present an analysis that will show how the interaction of the instrumental parts in Esprit 1, Esprit 2 and *Retrouvailles* can be heard as representative of an ongoing dialogue—interpreted through changes in texture, register, density, articulation and rhythm—that begins in Esprit 1 with general disagreement and gradually proceeds towards reconciliation in *Retrouvailles*. 
Chapter 2: Esprit Rude/Esprit Doux

The title *Esprit Rude/Esprit Doux* refers to contrasts in breathing and articulation that pervade the piece and help to determine local section boundaries. Although the terms apply to the way that individual notes are attacked, they can also be applied to entire sections of the music, since there are a set number of expressive markings in the piece that are each associated with a particular articulation and texture and that can each be classified as either *rude* (“rough”) or *doux* (“sweet” or “smooth”). These are: *giocoso, leggero, tranquillo* and *marcato.*[^1] The *giocoso*, *marcato*, and *leggero* passages, although slightly different, typically have accents and staccato articulations, involving more breath and heavy tonguing, causing them to fall under the category of *rude*, while *tranquillo* passages feature long connected lines and extensive slurring, making them *doux*. Another recurring texture (which I define more specifically below as “A material”) has no associated expressive marking but also falls under the category of *doux* material, due to its slurred articulation. Occasionally, there will be no change in the expressive markings on the score, but there will appear an obvious change in articulation or texture. For example, there is a *marcato* marking at m. 41, and the accented and staccato notes display “*rude*” characteristics, however, at the end of m. 43 the texture changes into smoothly transitioning tremolos (which could also be called trills), and then changes again at m. 47 into narrow-moving, slurred phrases, both manifesting “*doux*” characteristics without any change to the musical directions on the score. These points are distinct section boundaries as important as those specified with verbal annotations. The

[^1]: Although *leggiero* is the common musical term, Carter uses *leggero* in his scores, which is in fact the proper Italian word for “lightly.”
changes in articulation and texture, which occur relatively frequently (on average, between six and ten bars apart) are often quite drastic, and are easily perceived, even amidst the complicated musical texture.

The Polyrhythm:

The form of Esprit 1 is shaped around a long-range polyrhythm that spans the entire piece (except for its five-measure introduction). To describe this polyrhythm I will borrow John Link’s terminology from his dissertation, *Long-Range Polyrhythms in the Recent Music of Elliott Carter*: each instrument’s complete sequence of periodic attacks will be called a “pulse stream”, and each repeated inter-onset interval that contributes to the pulse stream will be called a “pulsation” or “pulse”; furthermore, “a moment in which the onsets of pulsations from [more than one] stream coincide will be called a coincidence point … [and] a cycle is the motion from one coincidence point to the next” (Link 1994: 8). The length of many of Carter’s pieces is determined by the length of the cycle of their large-scale polyrhythms. In Esprit 1, for example, from the beginning of measure 6 where the flute and clarinet begin simultaneously, we do not hear another simultaneous attack of the large-scale pulses until the last note of the piece. This marks one complete cycle, consisting of 21 flute pulses against 25 clarinet pulses. Thus we can say the polyrhythm has a ratio of 21:25. The pulse streams of the two instruments moving at slightly different speeds causes their pulses to weave towards then away from each other, effects that Link calls “convergence” and “divergence”(Link 1994: 12). 8

---

8While Boland discusses “convergent and divergent material” in her thesis, she argues that the former involves motion towards harmonic and rhythmic clarity (the equivalent of what I call “clear sections”), but she does not address the interactive behaviour (what I call “cooperation”) of the instruments in relation to the polyrhythm.
The tempi of these streams, however, are extremely slow. The flute's pulse has a tempo of about MM 4.5, while the clarinet's is about MM 5.37. Without any subdivision of such a long group, these extended durations are very difficult to entrain. So, one might argue that this polyrhythm is strictly formal in nature and is not intended to be an obvious feature of the musical surface. Perhaps to make it easier for a listener to follow the polyrhythm, Carter has, in fact, subdivided the slow pulsations in each instrument. The flute’s pulse (every MM≈4.5) is further articulated every MM=18, subdividing the main pulse into fours, while the clarinet’s (MM≈5.37) is also subdivided into fours, creating another layer of pulsation proceeding at approximately MM=21.5. I label these subdivisions of the instruments’ pulsations as “sub-pulses.” (I will express the pulse and sub-pulse rates in terms of a time span, rather than as a rhythmic duration, as the piece undergoes several changes of tempo.) The instruments’ pulses and sub-pulses are articulated by the onsets of new events or points of stress. For example, a change of pitch, a new attack point following a rest, and a dynamic accent all add emphasis to that point in time. When such events recur with a steady regularity, their periodicity becomes perceptible, and can be heard as something stable and constant within an otherwise changing environment.

Due to the shorter time span between attacks the sub-pulses (when they are present) are more obvious carriers of periodicity. The problem is that (except for the regular chimes of the marimba in Esprit 2, as we shall see) they are not consistent. The piece alternates sections featuring clear statements of the sub-pulses with sections, in which the sub-pulses are obscure. During the obscure sections the sub-pulse rhythm breaks down or is hidden beneath a complicated texture. One may question, given the
awareness of the sub-pulses, the necessity for the main (slow) pulsations that contain them. However, if it was Carter’s intention to feature a faster moving polyrhythm with four cycles, then one would expect to hear four coincidence points throughout the piece, but he does no such thing. In fact, the points at which the cycles of the sub-pulses would meet are consistently hidden by ties or rests. Furthermore, on the main pulsation-onsets of the piece there are more salient changes on the musical surface than on the sub-pulse attacks, further indicating the distinction between the hierarchy of pulse and sub-pulse. Notwithstanding all this, we shall see that the sub-pulses do play an important role in the structure of the piece, as the drive towards and away from their potential coincidence points guides the behaviour of the instruments.

The pulses and sub-pulses are not immediately evident on the score. What is clear, however, is that each instrument tends to stick to a particular subdivision of the notated beat. The grouping of these subdivisions into segments, usually by the addition of regular accents, proves to be the surface manifestation of the underlying polyrhythm’s pulse streams. Figure 2.1 shows the pulses and sub-pulses of the section beginning in m. 6.
These individual groupings in each instrument create a pattern of accents that overrides any groupings implied by the notated time signature. In fact, as illustrated in Figure 2.2, the time signature is merely a way for the players to coordinate their performance, as the metric accent that would normally be put on the first beat of a bar does not apply here; instead, the sub-pulses take on the role of metrical accent (in each
voice). For example, the flute groupings are the most consistent and almost always group divisions of the notated beat (often triplets) into fives. Thus in the opening section, from m. 6 to m. 11 (refer back to Fig. 2.1), the flute consistently groups together every five septuplet 32nd notes, and five of these groups of five combine to make the duration of one sub-pulse. As for the clarinet, aside from the beginning (of Fig. 2.2 where we see it divided into groups of three 32nd notes) it is most frequently grouped into seven, with the most common subdivision of the notated beat being a quintuplet.

Figure 2.2 Carter’s notated beat divisions

Regular Notated Time:

![Regular Notated Time Diagram]

Carter’s sub-pulses as metric accent:

![Carter’s sub-pulses Diagram]
Since the ratio of the large-scale polyrhythm is 21:25, and seven and five are respective factors of those numbers, we may understand the clarinet pulse divisions into sevens and threes (both factors of 21), and the flute divisions into fives (the sole factor of 25), as an allusion to the ratio of the total number of pulses present in the polyrhythm. In other words, since the polyrhythm is a cycle that governs the form of the whole piece, and the pulse and beat divisions are also cycles governing fractions of that whole, then one can see how Carter has unified the piece by relating the smallest cycles to the largest one.

The polyrhythm in Esprit 1 only involves two pulse streams, and completes one full cycle. However, not only are the pulse- and sub-pulse-onsets occasionally masked by ties, rests, complex rhythms or dense textures, but there are also metric modulations to take into consideration (see p.3 for definition). There are four of these in the piece, as well as several time-signature changes. The metric modulations sometimes coincide with textural changes (which, in turn, are often linked to changes in expressive markings), but they are not the only places where textural changes occur. There are many textural changes, and since those tend to define the boundary points for sections, there are consequently many sections in this piece—more than in either of the two other works. The section changes give audibility to the pulse structure that can be followed throughout the piece, since they frequently align with pulses from the polyrhythm. Furthermore, the flow between “clear” versus “obscure” textures appears to align with the convergence and divergence of the pulse streams. Therefore by outlining the sections I will unfold the formal design of the piece, and show how its organization is a reflection of the underlying polyrhythmic structure.

---

9 “Convergence” and “divergence” are terms taken from Link 1994: 12.
The Sections

At first glance of the score, one is confronted by intimidating rhythms: septuplet 32\textsuperscript{nd} notes in the flute against regular 32\textsuperscript{nd} notes in the clarinet, all of which are underscored by constant minute changes in dynamics; piano to pianissimo to mezzo-piano. Add to this a layer of articulations consisting of accents, staccatos and short slurs, and one can see right away that deconstructing this piece will be no simple matter. In Esprit 1, the intervallic repertoire is divided evenly between the instruments. That is, the flute only plays the intervals m7, M7, m3, M3, and P4 (plus their octave compounds), while the clarinet plays the remaining intervals, m2, M2, m6, M6, and P5, and both instruments play diminished 5ths. Note that each flute interval is the octave complement of an interval of the clarinet.

As mentioned above, audible changes of character (that is, of texture, rhythm and articulation patterns) usually create segmentation in the piece. The segments are usually quite brief, especially in comparison with Esprit 2, and frequently do not have drastic changes at boundary points, as one instrument usually changes character at a time. Each expressive marking is consistently associated with a particular texture and articulation, and these are divided between the instruments and the segments to produce various combinations of sound.

Most of the time, the instruments imitate each other’s character changes. For example, when one instrument turns from \textit{giocoso} to \textit{tranquillo} often the other instrument will do the same within a bar or two. Where the instruments imitate each other in
character or texture, I will call this behaviour “cooperative”\textsuperscript{10} Cooperation is enhanced when both instruments work to achieve a common goal (for example, completing an AIT, as in mm. 27-29), or when they alternate playing the melodic material while the other instrument rests or sustains a single pitch (as in mm. 10-18).

Textural changes articulate thirteen sections minus the first five bars. The first coincidence point of the two instruments' pulses on the accented downbeat of m. 6, and the expositional texture that follows, gives an introductory character to the rhythmically freer measures that precede it. (Henceforth, when referring to “the opening phrase” I will mean the material starting at the onset of the polyrhythm at m. 6; when referring to the material prior to m. 6, I will use the term “introduction.”) Specifically these measures introduce the partition of the interval repertoire between the parts (using almost all intervals), but only as large leaps, that is, compound intervals. This provides a strong contrast between the introduction and the next material, since once the polyrhythm begins at m. 6, both instruments play four bars (up to m. 9) using only the small intervals in their respective repertoires. Also, mm. 1-5 introduce the AIT (as defined on p. 3), first in the form of the sc 0137 which spells out the last name of the piece’s dedicatee, Pierre Boulez, as explained above. (This specific tetrachord is henceforth referred to as “the Boulez motto.”) It is important that the pitches of this opening tetrachord are evenly distributed between the flute and clarinet because it immediately symbolizes their efforts to cooperate in the production of a harmonic goal—something that will become a recurring event throughout not only Esprit 1, but also throughout the rest of the pieces in the trilogy. In this piece such harmonic goals are most often AITs, though 12-tone chords

\textsuperscript{10} So my definition of cooperation is different from that used by Roeder (2006), 385-6. Also, “cooperative” behaviour is not to be confused with the “clear” sections, in which both instruments are articulating their sub-pulses.
make an appearance at several critical points in the piece as well. (A 12-tone chord is a presentation of the complete aggregate where each pitch is fixed in register.\(^\text{11}\)) In addition to the sharing of pitches, the instruments also alternate melodic dyads (within the same harmony), introducing both rude and doux articulations, as shown in Fig. 2.3 below.

### Figure 2.3  Rude versus Doux articulations

![Rude versus Doux articulations](image)

During the opening phrase, mm. 6-9 (see Fig. 2.1), the clarinet is restricted to only major and minor seconds, while the flute plays only major and minor thirds, and perfect fourths. The texture and motion of the two parts are very similar here. Although the clarinet line is mainly divided into quick, slurred groups, while the flute mixes slurs and staccatos, both have the same dynamic levels, and both weave rapidly up and down

---

\(^{11}\) Schiff 1983: 48-49 refers to these as “twelve-tone tonic chords.”
within a very tight range. I call this the “A material,” and it returns, in both parts and at various times, throughout the piece. Although the periodicity of the sub-pulses exists on the score, as shown in Fig.2.1, the incessant fast lines of both the flute and clarinet during these measures make it difficult to hear the sub-pulses. In addition, Carter makes no special attempt to highlight the attacks that mark the sub-pulses any more than the surrounding accented notes.

The arrival of the next texture, signaled by the new expressive marking *tranquillo*, happens continuously and fluidly, with one part changing then the other. The flute’s texture begins to change before the clarinet does, in m. 8, to a long-held B5, while the clarinet persists in its previous texture for another two bars. Also (as will become the norm in this piece) continuity is made by the passing of a line from one instrument to the next. For instance, in m. 10, the flute and clarinet momentarily overlap, forming the tritone B-F (a shared interval type), before they exchange roles; the clarinet takes over the sustaining tone, while the flute plays busily over it (see Fig. 2.4.) The role-exchange coincides with the first metric modulation, at m. 11, and with the second polyrhythmic pulse in each instrument. The flute’s second slow pulse happens on the switch to the G#5 towards the end of m. 10, an attack made more noticeable by the quick crescendo to *mf*, and by the sudden change to a new pitch after more than a bar and a half on the B5. The clarinet’s second pulse occurs slightly earlier, on the downbeat of m. 10, where it switches into its new texture. A bar later, the flute’s expressive marking also changes, to *giocoso, leggero.*
In this section one can begin to notice how the sub-pulses mark changes in texture, pitch, or rhythm. At the metric modulation the previous tempo (quarter note=64-67) changes to a new tempo (quarter note=90-94) such that five septuplets are now equivalent to five quintuplets. This leaves the rate of attack unaltered, despite the tempo change. In this new notational scheme the sub-pulses in the flute last five quintuplets, that is, a quarter note, so Carter abandons the quintuplets in exchange for regular sixteenths during the length of this section. The clarinet’s sub-pulse divisions are absent in this section, as it sustains a single note. When the clarinet finally does change pitch, it is on the next of its pulsations, and it introduces a new interval: a minor sixth. The flute’s sub-pulse, landing on beat two of m. 12, does not stand out much from the texture, but it is the highest pitch
since m. 6, and (like the clarinet) also initiates new intervals, a major seventh and minor seventh, thus completing the intervallic repertoire of the flute. The next pulsation in the flute coincides with another metric modulation, and a change of time signature. It occurs on beat two of m. 17, on the switch to the C6 from the Ab5. The C gets held for the full duration of its pulse rate, just as the clarinet did earlier, switching on the downbeat of m. 21 to a D5, on another new pulsation.

**Figure 2.5** Clear articulation of sub-pulses
I do not hear these changes during mm. 16-17 as beginning a new section. When
the clarinet reenters, after a brief pause, halfway through m. 18, it is with the same
expressive marking and sporadic, quick texture that the flute had in mm. 12 to 16. Thus
it seems the flute and clarinet have exchanged styles again, continuing in the texture
characteristic of this section. Note that here there were pulses in both instruments, which,
although they stood out in the texture, did not correlate to any change of section.
Therefore, although the sections do frequently align with a pulsation in one of the
instruments, a pulsation does not necessarily dictate a section change.

The beginning of the next section coincides with another polyrhythmic pulse, this
time in the clarinet, at m. 22. (Refer back to Fig. 2.5.) It is marked timbrally and
rhythmically by the clarinet and flute moving into “rude breathing,” and a regular
subdivision of their pulses. The flute initiates the changes at the end of m. 21, loudly and
heavily tonguing a new pitch every five triplet eighths, creating an additional layer of
sub-pulsation. The clarinet, following suit in the middle of the next bar—where I
clearly hear the section boundary—changes pitch after every seven quintuplet eighths, or
every sub-pulse. This is one of a few passages in the piece, as mentioned, that appears to
strive for metrical clarity, as both instruments emphasize regular subdivisions of the
pulse. In such a transparent texture we can hear the pulse continuities that guide the
form, but only briefly—for only about four bars—before the clarinet begins to change, at
its next expressive marking, giocoso, in m. 25. Then the flute drops out, only briefly
reentering in m. 26 to play a 0146 tetrachord, where it too changes to giocoso.

12 On the downbeat of m. 21 the flute attacks on a slow pulse. Its next attack lands on a subpulse, and afterwards each successive attack is at twice the rate of the sub-pulses.
Near the beginning of m. 27, when both instruments begin a striking new tremolo texture, I hear the change into the new section (see Fig. 2.6). The instruments clearly coordinate their tremolos to produce a series of AITs. In m. 27, for example, the \{C#6, E6\} flute tremolo combines with the clarinet \{D3, Ab3\} tremolo to produce a 0137 tetrachord. The moment when each instrument changes to the next tremolo (at the end of m. 27) marks a slow pulse for both. It is unusual that this new tremolo texture neither coincides exactly with the change in expressive marking, nor with one of the slow pulses in either of the instruments. Both occur just before and just after (respectively) the change in texture. However, this does mark the first “crossover point” of the two pulses: where previously, in m. 27, the clarinet’s pulsation appeared to arrive just after the flute’s, but at m. 31, it appears to arrive just before. When both the flute and clarinet change to the new tremolo, they share a pitch, an F4, so that the two produce a trichord, a 026, rather than a tetrachord like the sets that precede and follow it. The ensuing tremolos resume forming AITs (with the exception of the sc 0136 in mm. 28-29, as shown in Fig. 2.6).

This cooperative passage resembles one studied in Childs 2006, which manifests the complement union property (CUP). This term describes a situation where “the union of any member of set class X with any non-intersecting member of set class Y is always a member of set class Z” (Capuzzo 2004: 5). However, the CUP is not quite manifested here, since every AIT is made by the combination of two different pitch intervals. Only the last two 0137s are alike, in that they both have a major third in the flute against a minor second (or compound minor second) in the clarinet.
At m. 28 on the notated beat 3, where the flute has a dotted tie, lies the completion of the first cycle of sub-pulse polyrhythms in both instruments. As mentioned, Carter makes sure that the instruments rarely make any simultaneous attacks save for the beginning and end, thus proving that the “real” polyrhythm is the longer one.  

However, the cycles of the sub-pulses do affect the interaction of the flute and clarinet. Note the trend in textures from the first section until the fourth:

a) The first section (mm. 6-10) is rather chaotic, with the sub-pulses completely obscured

b) The second section (mm. 10-22) manifests the pulses, though the sub-pulses are still unclear. There is an additional degree of cooperation, as the flute and clarinet exchange parts.

c) The third section (mm. 22-26) is completely transparent, with both instruments changing pitch exactly on their sub-pulses, allowing the listener to perceive the relative speeds of the instruments.

d) The fourth section (mm. 27-32) not only has perfectly clear sub-pulses, but there is the highest degree of cooperation between the parts, as the flute and clarinet combine their efforts to produce a chain of AITs.

Thus the first four sections gradually increase the presence of the sub-pulses of the instruments, as well as the level of cooperation between parts. This correlates to the gradual convergence of the sub-pulses, which culminates in the fourth section where they

---

13 On the final page of the Esprit 1 score, there are several simultaneous attacks, as well as three others throughout the rest of the piece, however, they all occur amidst busy textures, and never are both accented at the same time.
eventually meet, signified in the music by the tremolo section, which epitomizes the ideas of cooperation and unification, by the parts coming together to produce a common harmonic goal.

**Figure 2.6** Chain of AITs

Following the tremolos, both instruments change to *leggero* for a mere two bars, and as the flute attacks the long E6 at the end of m. 31, another clear section begins with slow-moving pitches changing in time with the sub-pulses (see Fig. 2.7). A bar later the clarinet joins in this clear texture, just before a time-signature change and metric modulation.\(^\text{14}\)

---

\(^\text{14}\) There appears to be an editorial error at the end of m.32, as the clarinet's part should have a quintuplet brace over the last two beats, in order to have the correct number of beats in the bar.
The last pulse in the clarinet was on the A3 in the middle of m. 30, and the next pulse should occur after the next three sub-pulses, or the equivalent of 42 quintuplet-eighths later. Knowing this, we should expect a pulse four quintuplet-eighths after the end of m. 32, but Carter inserts a metric modulation here, thus the next pulse in the clarinet is notated on the Db4 in m. 33, as shown above in Fig. 2.7. Interestingly the clarinet continues to be grouped in sevens, changing pitch every seven quintuplet eighths, (five quintuplets equaling a half note) despite the tempo change from quarter note = 60 to quarter note = 90 (or half note = 45). Hence it articulates a sub-pulse rate of M.M≈32.14, temporarily replacing the previous sub-pulses, articulated approximately
every M.M≈ 21.42. However, the pulsations themselves are still clear, as six of these new or “temporary” sub-pulses are equal to the time span of one complete polyrhythmic pulse. Indeed exactly six beats are sounded up until the next pulse arrives over the piano marking in m. 36, switching back to the previous busy texture, as well as the previous pulse subdivision. Meanwhile, the flute’s slow moving pitches during this past section starting at the end of m. 31 exactly articulate its sub-pulses, and spell out an ATH <E6, F5, Bb6, Gb4, B5, D7>, the first we have encountered. This is one of the only places in Esprit 1 where an ATH aligns with a beginning of a section. As will be seen in later chapters, this becomes a more common technique in Esprit 2 and Retrouvailles.

The flute displays climactic qualities in this section, by attacking its notes “roughly” (each new articulation is accented) and making large leaps in register. The D7 is the highest pitch sounded in the flute so far, and one of the few to be found in the entire piece. Furthermore, it hangs on this pitch for almost a full bar, as the clarinet suddenly breaks from its previous texture and begins playing in quick-moving, chaotic bursts. Immediately after the flute’s D7, the clarinet makes a sudden shift in character, momentarily recalling the “A material” before switching into more random, staccato leaps in m. 37. This is similar to the material from mm. 18-22. The clarinet’s recall of the opening material in m. 36 may be intended to signify the presence of a polyrhythmic pulse.

At the conclusion of the fifth section, one can retrospectively note the quasi-palindrome built around the fourth section: the short sections preceding and following it have both instruments articulating their sub-pulses. In the third section (mm. 22-26), the clarinet makes wide leaps while the flute remains fairly restrained, never stating an
interval larger than a minor seventh. In the fifth section however (mm. 32-36), it is the flute jumping multiple octaves, while the clarinet only plays intervals of a major sixth or less.

The sixth section, starting with the clarinet’s polyrhythmic pulse in m. 36, brings back a more chaotic energy, as both the clarinet and flute play their lines with no regard for each other. The flute hangs on to its long notes from the previous section while the texture in the clarinet switches to the “A material” (defined on p. 17). Although the flute and clarinet both switch to a legato marking halfway through m. 37, their parts do not complement one another, but rather awkwardly stutter along as if both are trying to speak at the same time. This completely submerges the sub-pulses, as not only does the texture appear relatively uniform, but there is not enough differentiation between the layers of pulsation. Furthermore, there is no particular harmonic scheme governing this passage.

There is, to a slight degree, contour imitation and inversion between the parts, and they tend to follow each other’s change in register. So, for example, the clarinet and flute in m. 37 are both in their high registers, then in the next bar they simultaneously move down into the middle range. This begins to change in m. 39, as the flute edges higher, while the clarinet remains in the middle range. Then, in m. 40, the clarinet continues in the same fashion but the flute begins holding these very long tones, similar to the texture created in measures 17-21.

The clarinet’s reprise of the “A material” in m. 36, is in fact hinted at first in m. 32, right before the two instruments break into long notes (see Fig. 2.8). In fact, the pitches in m. 32 are the same as the ones which begin the phrase in m. 36. Thus the short clear section from m. 32 to 35 is sandwiched between two instances of this theme.
A very striking recall of the “A material” appeared earlier, in m. 20, interrupting the local pulse structure. However, only the episode at m. 32 can be considered to foreshadow the reprise at m. 36 on account of its close proximity. Throughout this section then, are little slices of the “A material”, again using the same range of pitch material as seen earlier. For example, it appears: midway through m. 39; during beats two and four of m. 40; and again midway through m. 41. These little thematic gestures are also always played slurred, while the notes which surround them jump across larger intervals, cover a wider range, and are played staccato. It could be argued that the incorporation of the “A material” in a new context, within such a chaotic section, functions as a kind of development.

Towards the end of this section, in m. 40, the flute switches from its sporadic staccato notes to long held pitches that announce its sub-pulses. The clarinet, however, determined in its course, continues to play fast, staccato notes. After the end of this section is a little transition: towards the end of m. 42, as if making a compromise, the flute finally speeds up its attack rate while the clarinet slows down. Starting with the clarinet’s accented fortissimo C#4, they also alternate attacks, finally cooperating to spell out a 0146, before entering into another tremolo section (see Fig.2.9). This transition is
very reminiscent of the introduction, where the pitches of an AIT (albeit the other type) are divided evenly between the two instruments, alternating rude and doux articulations (recall Fig.2.3). Here again the harmony is reinforced by pitch repetition as well as pitch sharing between instruments, in this case the Ab5 and D5.

The following section, straight-forward and clearly organized, contrasts against the loosely structured previous section. As shown in Figure 2.9, each instrument alternates moving from one tremolo to the next, such that each combination of tremolos (with the exception of one) creates an AIT, much like the texture at measures 27 to 29. The flute begins by obsessing on interval class 5 while the clarinet accommodates, switching from interval class 2 to 3 as necessary. Approximately halfway through the passage the flute becomes more flexible, and plays other interval classes in order to continue the chain of AITs.
Having remained hidden since the last clear section at measures 33-36, the sub-pulses return here, appearing in conjunction with every change of tremolo for both instruments. To reinforce the articulation, Carter adds accents and new dynamic markings to the attack of each new tremolo. Not surprisingly, this tremolo section marks the second coincidence point for the sub-pulses (and also another “crossover point” for the slow pulses), and the halfway mark for the piece. Note that since the first sub-pulse coincidence point, the textures gradually receded in clarity and cooperation, and then gradually swung back as the sub-pulses re-converged.
Following this section, where the relative speeds of the instruments, as well as their harmonic goals, are audibly apparent, is yet another contrasting section of obscurity. The clarinet begins, at the end of m. 47, repeating its “A material”. This time, the flute joins the clarinet, also playing the "A material". This lasts for two bars, and foreshadows a recapitulation that begins in m. 65. Both instruments, in mm. 48-49, are playing within similar, overlapping narrow ranges. Both instruments frequently repeat pitches between G4 and F#5. This cooperation is broken by the clarinet over the first Ab5 in m. 49. This also breaks its intervallic pattern by jumping up by a perfect fifth. The flute leaves its established range when it hits the \textit{mf} A5 less than a beat later. Both instruments gradually ascend and parallel each other’s movements. The clarinet peaks at F6 while the flute continues all the way up to the B6.

In m. 50 the clarinet initiates a new \textit{tranquillo} section, with the flute following in the same texture a bar later. The change is cued by the imitative marcato gestures at the end of m. 49. This section features the flute and clarinet alternating extremely long sustained pitches that jump across the full range of both instruments. The whole section never gets louder than \textit{piano}, and there are no rests (except for breath marks), as every note passes seamlessly to another. This section stands apart from the rest of the piece, as it is the only passage where both instruments exactly articulate their slowest-moving polyrhythmic pulses, without also marking the sub-pulses. They begin cooperatively, as the first four pitches of the clarinet and flute articulate a 0146 set class. Although this pattern does not get repeated, the two instruments do form a 12-tone chord, as there is exactly one representation of nearly every pitch class (only the C#5 is repeated). Moreover, they both ascend in register together, alternating attacks. Finally the clarinet
breaks the pattern at m. 61, dropping from its highest pitch to its lowest, as it breaks down into sub-pulses. At m. 63, the flute and clarinet sub-pulses coincide for the third time (with yet another “crossover” in the slow pulses), but the point is masked due to a tied note in the flute.

Although Carter does not make use of the tremolo sections as he did at the first and second coincidence points, this section still fulfills the requirements of optimal clarity—as the instruments articulate their pulses, and also cooperation, as the instruments combine to create the AIT and a 12-tone chord. This is framed palindromically by wide-leaping, staccato gestures in the flute that use the same pitches heard just prior to the tranquillo section (compare m. 50 and m. 64 in Fig. 2.10)

**Figure 2.10  Palindrome borders**

![Palindrome borders](image)

The palindromic framing is reinforced by several other factors. The overall contours in the measures leading up to the tranquillo section are ascending, while afterwards they are gradually descending. Also, in m. 65 both parts return to the narrow-ranged material that we heard leading up to the tranquillo section. If we look at m. 49, both instruments are
playing their A-theme material simultaneously. Looking back farther to the end of m. 47, however, they both weave in and out, with brief pauses where one instrument rests while the other is playing. The section immediately following the *tranquillo* section shows the same texture as m. 49, where the instruments are playing together, until the end of m. 65, where the texture from 47 returns.

This weaving "A material" texture continues over a whole page of the score, from m. 66 to m. 72. Although the instruments share pitches with a narrow range, there is also some imitation. For example, the gradually ascending clarinet line at the end of m. 68 is mimicked two bars later in the flute (though with its own intervallic pattern). There are also occasional outbursts that do not fit the surrounding texture but, as shown by the alphabetical labels in Figure 2.11, these are also imitative. The first, “X,” appears in the clarinet, and is a single accented *forte* E3, one of the lowest possible notes for the clarinet, and certainly much lower than the notes of the surrounding measures. This is imitated in the flute (“x”) in the following measure, though in the opposite register. This D#6 also stands out from its surroundings by way of its pitch, articulation and dynamics. The next misfit (“Y”) is initiated by the flute, on the downbeat of m. 69, with the long held F5, imitated in the following bar by the clarinet’s B5 (“y”). Finally, another accented *forte* note, a G#5 (“Z”), in m. 71 in the flute is imitated by the clarinet, again in the following bar, with the high F6 (“z”).
Figure 2.11  Imitative gestures

ESPRIT RUDE/ESPRIT DOUX
© Copyright 1985 Hendon Music, Inc.
A Boosey and Hawkes Company
Reprinted by permission
The flute takes a short break at the end of m. 72, and when it reenters, plays a long \(<E_4, C_4>\) as shown in Figure 2.12. This break of the previous texture sounds like the beginning of a new section. The clarinet follows suit, overlapping the flute’s notes with its own longer notes: F#4, A3, Eb3, Bb3. The last two notes of the clarinet overlap with the flute’s E and C to form a 0146. Shortly, however, both instruments return to fast, staccato notes. These few slow bars from m. 73 into m. 76 have the effect of making the return of fast material at m. 76 sound like the beginning of another new section, thus giving the slow passage a transitional function.

**Figure 2.12** Transition into m. 76 and 12-tone chord

*Despite all other pitch classes being repeated within the same register, the pc “G” is repeated at G3 in the clarinet, but G5 in the flute.*
Marking the textural shift, initiated by the clarinet in m. 76, is the appearance of another 12-tone chord. The contour of both lines curve upwards in m. 77, as they both move into the highest pitches in their range; the Bb/A#6. This climactic pitch is marked *fortissimo* in both parts, but it is the pitches following this Bb6—the B5 in the flute and Ab5 in the clarinet—that complete the chord.

The remainder of m. 77 breaks out of the 12-tone chord, but maintains the same texture, as the piece moves across the final metric modulation at m. 78 (quarter note = 90). Although the quick-moving staccato notes continue the previous texture, the range of pitches for both instruments narrows noticeably beginning at m. 78, and again, makes a final recall of the “A material.” Also, there is now a very regular pattern of accents. In the flute, an Eb5 occurs on the downbeat of m. 78, and afterwards, with the exception of an occasional rest, there is an accented Eb5 after every 5 triplet sixteenths. In the clarinet, there is an accented D5 after every seven quintuplet sixteenths. For both instruments, these accents are unusual, in that they do not articulate the sub-pulses, but rather, a *further* breakdown of the sub-pulses. Both instruments’ sub-pulses are articulated every third accent, as indicated by the brightly coloured arrows in Figure 2.13.
This pattern lasts for five bars, from the downbeat of m. 78 to the end of m. 82. The range of notes during these bars is almost identical for both instruments. The flute plays between Eb5 and F4, and the clarinet from D5 to F4. Both of their accented pitches are the highest within the given ranges, and these pitches are always approached by leap. These pitches specifically exclude the pitch class E, which will be the final resting point of the piece. At the end of m. 82, the clarinet climbs out of its restrictive range, while the flute, also breaking out of its pattern, hits an accented Db where we expect another Eb. The changes signal the final section of the piece.

The texture returns at m. 83 to the regular, predictable attacks, with a change of pitch on every sub-pulse of each instrument. As shown in Figure 2.14, the first pitches in
this new section state a jumbled statement of the Boulez motto, <A, Bb, E, C>, followed by another motto in regular order <Bb, C, A, E>. Interestingly, the flute, displaying a final gesture of cooperation in the last measures of the piece, borrows an interval from the clarinet (a pitch interval 8) in order to state the final C7-E5 of the motto. The pitches from the mottos, combined with the rest of the pitches through until m. 86, complete one last 12-tone chord.

**Figure 2.14** Statements of the Boulez motto

The flute and clarinet alternate attacks throughout the section until the final bar, when they announce the final statement of the Boulez motto. Perhaps for dramatic effect, Carter has the last six pitches moving in opposite contours as they jump to the extreme outer registers, only to converge on the final E5 simultaneously, completing the large
pulse cycle of the polyrhythm and, therefore, the piece. Moving towards this last coincidence point, the sub-pulses are clear, and the instruments are cooperative, alternating pitches.

**Conclusions**

Considering all the details uncovered in the preceding discussion, several aspects of the piece are apparent.

An important processes is moving between textures in which pulses or sub-pulses are clear or obscured. We already noticed how the first four sections gradually grow in clarity and cooperation as the sub-pulses converge. From section five through to section ten, the sections appear to alternate between clear and obscure ones. There also appears to be a palindromic surrounding of the sections where there are sub-pulse coincidence points (see Fig. 2.15).

At certain crucial moments, the instruments are cooperating to achieve a common harmonic goal (or, in a milder form of cooperation, where the parts merely imitate one another). However, where there is cooperative activity, it mainly appears in conjunction with the so-called “clear” sections, and usually involves the two parts combining to form an AIT, ATH or 12-tone chord. As we shall see, though, this level of cooperation pales when compared to Esprit 2 or *Retrouvailles*.

The majority of sections coincide with a pulsation point in either the flute or clarinet (or, occasionally, when the two are in close proximity, both), with the exception of the two tremolo sections, which appear in between slow pulsation points.
The overall form involves the recurrence of particular textural patterns and pitch content: the A material, the tremolos, the "clear" passages, and the Boulez motto. What are the significances of these recurrences, if any? As already mentioned, the middles of the tremolo sections are coincide exactly with the ending points of the first two sub-pulse cycles, and crossovers of the slow pulses. Though these coincidence points are not physically attacked in the music, their existence still seems to govern the interaction of the flute and clarinet. The Boulez motto is not prominent throughout the course of the piece, but is only referenced explicitly (with the correct pitch classes) at the opening and the end. This gives the piece closure, but also gives the Boulez motto an associational reference, as it only tends to appear at the extreme ends of the spectrum of the polyrhythm. The “clear” sections in the piece (in which a shift in pitch clearly marks each sub-pulse) serve two purposes: they allow the listener to tune in to the relative speeds of the instruments, and they provide contrast to the sections where the pulses are obscured, which, in almost every case, are sections which are also chaotic in nature. The “clear” sections have a kind of calm, as if they represent “discussion,” while the “obscure” sections seem to represent “argument.” This dichotomy is represented not only by the obstruction of the sub-pulses, but in the overall texture as well. In these “chaotic” sections, both instruments act independently of one another, and are usually very high in attack density. Lastly, with regard to the return of the “A-material,” aside from providing a sense of continuity and unity, as it appears in every quarter of the piece, it helps to organize the sections.

---

However, one may argue that the chain of AITs in the tremolo sections refer to the Boulez motto.
The textures in the piece can be described as fitting into one of four categories, labeled “A” through “D” as described below.

The “A material” has the following qualities: a high attack density, narrow range, mainly stepwise motion or small leaps, slurred articulation, and quiet dynamics (pp-mp). Since esprit doux articulations are defined as those which use minimal breath and force of attack, then the majority of character traits in the “A material” can be considered to fall under this category.

The leggero character markings, although quick and relatively light in articulation, still use staccato and have occasional accents. Also, the sections which feature primarily a leggero texture can have wider leaps, a moderate dynamic range (mp-mf), and frequently the musical line is broken by short rests. Therefore the majority of these traits belong under the category of esprit rude or “rough breathing,” and all sections which match the above texture will be called “B.”

Sections of marcato style show a detached but heavy articulation, loud dynamic range (mf – ff), wide leaps, and frequent changes in contour (for example, mm. 76-77.) These characteristics are most typical of esprit rude, and sections which primarily display the above traits will be called “C.”

Lastly, sections which show smooth connecting lines, with minimal rests between changes in pitch, and relatively long durations will be labeled “D.” This would include the long tranquillo section (from mm. 50-63); the textures in sections 3 and 5 (mm. 22-25 and mm. 32-36, respectively), and the tremolo sections (mm. 27-30, and mm. 43-47). Though the tremolo sections best fit the “D” category, their somewhat sharp attacks at
each new change of tremolo are a modification of “D” behaviour. I therefore label them “DD.”

Having classified textures, we can attribute the following organization to the thirteen sections (excluding the introduction):

**Figure 2.15** Form Chart

<table>
<thead>
<tr>
<th>Section #</th>
<th>1 (mm.6-10)</th>
<th>2 (mm.10-22)</th>
<th>3 (mm.22-27)</th>
<th>4 (mm.27-32)</th>
<th>5 (mm.32-37)</th>
<th>6 (mm.37-43)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texture</td>
<td>A</td>
<td>B/D</td>
<td>D</td>
<td>DD</td>
<td>D</td>
<td>B(a) C/D</td>
</tr>
</tbody>
</table>

The sections with coincidence points in the sub-pulses are marked in bold. Note the textural palindromes that surround the first and third of these coincidence points. Judging by this chart, the first six sections are exposition-like, in that they present all possible textures, and present mostly original material with little recurrent material. Beginning in section 6 then, is a foreshadowing of development-like qualities, as there is the first return of the “A-material” (marked in lower case on the chart above, as it is not the
primary texture of the section). From this point, the A material appears in every second section until the end of the piece.

Since the piece is entitled *Esprit Rude/Esprit Doux*, it is logical that the flow of textures organizes the piece into sections, and that the piece uses the coincidence points of the sub-pulse cycles as nexus points around which the flow of “smooth breathing” (or “clear” sections) and “rough breathing” are structured. As the instruments move towards these nodes they begin a reconciliation, represented by the increase in the clarity of the sub-pulses and an increase in cooperative activity.

In the following chapter, we will look at how Esprit 2 continues many of the ideas presented in Esprit 1, and what processes and general trends can be seen as we progress from this piece to the next.
Chapter 3: Esprit Rude/Esprit Doux II

Esprit Rude/Esprit Doux II (henceforth Esprit 2), written ten years after Esprit 1, shares certain aspects of the former composition’s structure and musical content. The most obvious similarity is the scoring, which includes the Esprit 1 instruments, solo flute and clarinet. The addition of a marimba part, however, allows the ensemble to produce more complicated harmonic structures and rhythmic processes. Furthermore, the marimba has the ability to play simultaneities (chords), adding another dimension to the harmonic structure. Given the title, the inclusion of the marimba may appear unusual since it does not require the use of breath. However, it mimics the rude and doux articulations by playing with hard and soft mallets, respectively.

The interaction of the three instruments puts the clarinet and flute into relief, as they create most of the melodic material, while the marimba’s role is mainly accompanimental. For a large portion of the piece, the clarinet and flute actually pass a single melodic line back and forth between themselves, creating a texture similar to the monophony that will be heard in much of Retrouvailles. The different timbres of the instruments allow us to hear them as individuals, and the longer stretches of melodies passed between parts, something that is relatively infrequent in Esprit 1, shows a greater attempt at dialogue and amicability between instruments in this piece. However, as in Esprit 1, the textures that arise from the instruments cooperating or acting independent of one another play an important role in the creation of sectional groups and phrases, as most of the large sections in the piece involve the cooperation of the instruments to complete a common objective.
Indeed, despite a greater harmonic complexity, the overall form is more straightforward than that of Esprit 1. It is broken into sections in a similar fashion to Esprit 1, but the segments are generally longer. There are few expressive markings in this piece, unlike in the former piece, where the expressive markings tend to correlate with the changing of sections. On the other hand, idiomatic gestures are used quite frequently, namely the fluttetongue in the flute, and the timbral “squawk” or “honk” of the clarinet, especially when it moves into the lower registers. These, along with certain repeated gestures (e.g., tremolos, block chords, and specific harmonic groupings) provide a sense of aural coherence to the piece, and sometimes cue new section beginnings.

Spanning the section divisions is a large-scale harmonic process. This piece first focuses on the creation of intervals, or dyads, then gradually gathers these intervals into trichords, tetrachords and, finally, hexachords, most of them ATHs. Note that in this piece all the instruments share the same intervallic repertoire; the partition of intervals between the flute and clarinet that was used in Esprit 1 is no longer evident. The intervals are highlighted by the various ways of combining the instruments melodically and harmonically. For example, the first two sections (mm. 1-20) focus on one of the following ways of creating intervals or chords:

- various instrumental combinations work together to produce dyads, either melodically or harmonically
- a single instrument creates focus on an interval, usually by playing a tremolo
- two instruments play tremolos, combining their individual intervals to create a trichord or tetrachord
The focus on dyads is very much at the surface of the music, as it is easily audible. More in the background, all-trichord-hexachords (ATH) prevail, much more so than in Esprit 1. These chords, though not in themselves difficult to perceive, are certainly harder to hear than the dyads, as there are more pitches involved, and the different instrumentation and spacing of each makes them difficult to identify. However, unique to this piece is a large segment where all instruments remain within a single ATH collection, \{1,2,5,7,8,9\}. This is quite easy to hear. Also, as I will detail in the paragraphs to follow, Carter frequently makes use of pitch repetition that, when combined with the sparse textures throughout, gives a transparency to the harmonic structure that is absent from Esprit 1.

**The Polyrhythm**

As one might expect in a sequel, there is a long-range polyrhythm that runs throughout, guiding the form, just as in Esprit 1. What is interesting, however, is that Carter gives the players the option of connecting the two pieces by substituting the first measure of Esprit 2 for the last measure of Esprit 1. Since the downbeat of the latter is the coincidence point of the slow Esprit 1 pulses, Esprit 2 thus begins with that coincidence point. Accordingly, many of the formal rhythmic devices seen in the last piece are replicated here, though there are some alterations. Each instrument plays in its own tempo, with very regular interonset intervals, creating an audible periodicity for each part. Although the addition of a third instrument with its own distinct tempo and beat division has the potential for creating a chaotic, dense texture, the attack density and registral density remain much lighter than Esprit 1 throughout.
The distinctive continuity of each instrument is also reflected in each instrument’s respective division of the beat, as was the case in Esprit 1. However, the beat divisions are not the same as they were in Esprit 1, in fact, they are the opposite: the flute now plays throughout the piece in quintuplet sixteenths, and the clarinet plays in triplet eighths with the marimba in straight sixteenths (recall that in Esprit 1 the flute played in triplet eighths while the clarinet played in quintuplet eighths). Not only have they exchanged, but the slower pulses themselves are different. The flute articulates a new pulse every 17 quintuplet sixteenth notes; the clarinet, every 8 triplet eighth notes; and the marimba, every 35 sixteenth notes. The marimba usually subdivides into 7 x 5 sixteenths, but no features of the surface textures of the music suggest that either the flute or the clarinet are conveying any sub-pulses. The slow pulses work out to tempi of 20.58 beats per minute for the flute, 26.25 for the clarinet, and 8 for the marimba.

Unlike in Esprit 1, there are no notated metric modulations, and there is only one time signature change into 6/4, at m. 65, which lasts a single bar before returning to the original 4/4. This means that throughout the piece, none of the instruments deviate from their beat divisions, making them easier to follow on the score than in the previous piece.

The total duration of the composition is determined by the completion of one full cycle by the marimba and clarinet. This cycle is somewhat obscured, because at their first coincidence point (beat 1 of m. 1) the marimba is resting, and at the next (and final) coincidence point, both are resting! The plan is further complicated by the fact that the flute's first interonset duration, 23 quintuplet sixteenths, does not match its subsequent recurring pulse, with a characteristic duration of 17 quintuplet sixteenths. Thus at the beginning, the marimba and clarinet begin their cycle together, while the flute and
clarinet, with their simultaneous attack on the downbeat of m.1, make it seem as if the flute has begun its cycle, although in fact, it is in-between pulses, and so its first attack does not coincide with the cycle of the other two instruments. The flute finally aligns with the cycle of the clarinet and marimba on their final coincidence point at the end of the piece.

Within the boundaries of the piece the flute marks a total of 82 pulses (plus the extra 6 quintuplet sixteenths at the start); the clarinet marks 108 pulses and the marimba marks 32. Although these three slow pulses do not coincide before the end, there are frequently points where the subdivision of the marimba’s pulse coincides with that of the clarinet, since the marimba is regularly divided into groups of 7 sixteenths. Carter makes a particular effort, however, to avoid simultaneous attacks at these points (just as in Esprit 1) by having one of the instruments resting, or by holding a note by tying it across the barline. Since he also avoids simultaneous attacks at other times, it is that much more striking when the instruments’ pulsations do coincide.

**The Opening**

Since the first four pitches of both Esprit 1 and *Retrouvailles* state the literal Boulez motto <Bb, C, A, E>, one might expect the same of this piece, but it does not. Perhaps, since Esprit 1 ends with a statement of the Boulez motto, and this piece begins exactly where the previous piece left off, the absence of a clear statement of the Boulez motto at the beginning is not too surprising. The flute does state the right type of set, a 0137, with its first four pitches, (as shown in Fig. 3.1). And after hearing the first three
pitches of the piece \{E, D, F\}, one would expect the next note in the flute to be a Bb in order to complete a more obvious 0137, yet we hear a B natural instead.

Some imitation, even more explicit than that of Esprit 1, is evident immediately. The piece begins with the flute and clarinet on a unison E5, followed by a long fluttetongue D3 in the clarinet. The flute mimics the clarinet’s articulation a few seconds afterwards with a long F6, and both sustain their pitches until they are cut off by the sharp entry of a marimba chord. This textural pattern continues until m. 8, with the flute and clarinet weaving a series of intervals interspersed with verticalities in the marimba. The series of intervals marked on Figure 3.1 show how the clarinet and the flute closely imitate each other during mm. 4-8.
Figure 3.1  Initial AIT and exact imitation
In fact, considering the observation about the missed 0137 at the opening, it is possible that the B natural in the flute’s part at the pickup to m. 4 is in fact a misprint for a Bb, since a Bb would take the imitation from being close, to exact. In other words, the B to G would become Bb to G, creating a -3, matching the first interval of the clarinet, as well as completing a melodic 0137.

The Sections

Clear changes in texture and style throughout break the entire piece into five major sections, with each section further subdivided, albeit in a less audible way, into what I will call “groups” or “phrases,” where each group is bound together by common harmonic structures, pitch material, and/or a temporary rhythmic or textural pattern. The first major section lasts from the beginning of the piece until midway through m. 14. Until this point, the texture remains fairly consistent with the flute and clarinet imitating each another, beginning with long held notes and moving into shorter ones. The second section, beginning at m. 14, is characterized by long, fast tremolos in multiple parts. The third section, at m. 20, is typified by short staccato notes, and sparse melodic fragments that sandwich a very dense two bars (mm. 25-26) in the middle of the section. The fourth section, starting at m. 35, begins a long melodic line in which the clarinet and flute take turns presenting melodic phrases all the way until m. 53. Finally, the last section, from m. 53 to the end, features a combination of the techniques and textures of all the previous sections, until the last few bars, when all the parts come together to announce the final ATH of the piece, and land, after a chaotic coda, on the same unison E5 that began the
piece. Thus, although the piece is slightly longer, there are far fewer sections, with much less activity within those sections in comparison with Esprit 1.

Section 1

In order to illustrate the harmonic structure of the piece, a brief walk-through of the segmentation will be necessary. Supplementing the changes in texture noted above, a recurring harmonic device helps articulate the section at the opening of the piece. These are the chordal “chimes” that the marimba plays consistently on every one of its slow pulsations. More often than not, they signify the end of a group by completing the aggregate or an ATH. For example, Figure 3.2 shows that if we omit the initial unison E of the piece, the first tetrachord in the marimba marks the completion of the first ATH, and of a complete phrase. After this first chime up to and including the next (m. 6), is also a small self-contained group, consisting of another ATH.

Figure 3.2   Opening ATHs
The marimba articulates its slow pulse extremely clearly, almost always playing a simultaneous chord or an accented note somehow removed from the surrounding texture. Not only does this predictability give a sense of aural coherence to the piece (one that is absent from Esprit 1), but the chords which appear on structurally significant pulses frequently act as a cue to the beginnings and endings of harmonic units; so this pulse provides a clean grouping structure to the piece that makes it more approachable.

After the marimba’s second chime in the middle of m. 5, it reiterates the same four pitches for the next two and a half bars, until just after the downbeat at m. 8. Its rhythms are much shorter and spastic than those of the clarinet and flute, who each play through four long held notes as part of the imitation noted above. The four notes of each of the three instruments in this phrase combine to create a 12-tone chord (not to be confused with an all-interval chord, discussed in the next chapter), with each instrument assigned to a different 0167 tetrachord (as shown in the figure below).
The clarinet and flute’s slow imitation through their respective pitches creates a string of vertical dyads featuring pitch-class interval 4. The last of these occurs in m. 8, where an Ab4 in the clarinet supports a C5 in the flute. This pitch interval 4 combines with the marimba’s 0167 to form an ATH. But the marimba suddenly ends the 12-tone chord and
switches to playing \{F, F\#, G, B, C\#, D\}, the complement of an ATH (sc 012568), thus completing an aggregate.

Immediately following this, the Ab and C move into the flute in the form of a tremolo (refer to Fig. 3.3). The flute passes the tremolo along to the clarinet, still maintaining a pitch interval 4 (this time Eb-G). This new tremolo figure in m. 9, together with the marimba’s \{Bb, E, A\} trichord on its pulse on beat 4 of the same bar, cues the entrance of a new phrase, which lasts until the end of m. 10. Note already, after only the first section, how the instruments in Esprit 2 are much more cooperative than in the previous piece: the three instruments all contribute to the ATHs at the beginning, they follow each other in imitation, and they work together to reiterate pitch interval 4.

At m. 11, the texture reverts to that of the opening three measures, where the clarinet and flute alternate single pitches answered by the marimba’s vertical tetrachord. This sudden shift into a slow, sparse texture acts as a brief transition into the next section, mm. 14-19, which features the tremolos foreshadowed in m. 8. Perhaps answering the clear transposition in section one, during this transition there is a clear inversion: the clarinet in mm. 11-12 presents three staccato pitches, A4, D4, B3, and follows them in mm. 13-14 with Eb4, Bb4, Db5. Also, recalling how the Ab and C involved in the first section’s transposition became a tremolo, the clarinet’s Eb and Bb are taken into the flute, again in the form of a tremolo. There are other flute and clarinet interactions, too. The last pitch of the clarinet’s inversion, Db5, sustained during mm. 14-15, picks up the C#5 that the flute had sustained across mm. 12-13. At the point where the clarinet attacks the Db—and again shadowing a pulse in the marimba—the texture shifts into the fast repeating notes and tremolos that define the second section.
Section 2

We have seen that the first section highlights single intervals, either by pitting single pitches from the flute against single pitches from the clarinet, or occasionally with a tremolo in only one instrument at a time. The second section begins by highlighting particular combinations of intervals and their resulting trichord or tetrachord. For instance, the second section begins with the flute stressing pitch interval 7 by playing an Eb4-Bb4 tremolo, while the clarinet combines its Db5 with the marimba’s D4 to create a pitch interval 11 (these two dyads combine to form a sc 0257). The flute and clarinet remain playing their respective pitches as the marimba changes from D4 to G#3 to G4, in each case creating a new interval between it and the clarinet, and consequently a new tetrachord in each case, as shown in Figure 3.4.
After the clarinet drops out in m. 15, the marimba and flute create two trichords, a 037 (Eb major triad) followed by a 016 (see figure above). During this passage, the marimba’s line creates a drawn-out 0146, the other (non-Boulez) all-interval tetrachord, as shown in the figure above. Then finally at the marimba’s next slow pulse (indicated by the arrow in Fig. 3.5), it switches from repeating a single pitch to playing a tremolo, so that the flute and marimba play tremolos at the same time, pitting a pitch interval 7 against an pitch interval 4 to create yet another type of tetrachord, this time a 0157. Although this section displays a diverse harmonic vocabulary, one can hear the changing combinations of intervals as a process unifying the section. At the very end of this
segment, the flute and clarinet drop out entirely—something that is relatively rare in this piece and hence stands out aurally. This shifts the focus to the marimba as it quickly moves between two different tremolos creating another tetrachord (a 0148), and cuing the beginning of the next phrase.

**Figure 3.5** Shift from trichord to tetrachord to ATH

```
016 (see Fig.2.4)  0157  ATH {1,2,5,7,8,9,}
```

![Figure 3.5](image-url)
The end of the marimba’s line breaks the texture with two simultaneous trichords, a 036 followed by a 026, which help to clarify the switch into the new phrase. This brief solo by the marimba covers all of the pitches—{D4, F4, G4, G#/Ab5, A4, Db/C#5}, another ATH—that will be used in the second and final phrase of this section, through to the end of m. 20. Thus the first four pages move through a development of intervallic sounds whereby relatively simple dyads are continually elaborated and built into trichords and tetrachords, and eventually into a single hexachord.

Section 3

After this cumulative process is complete in m. 19, the texture and rhythm of all parts change sharply from sustained tremolos into pointillism. (See Fig. 3.6.) A quick staccato ascending perfect fourth in the flute, in m. 20, is immediately answered in the marimba with a descending major third, and then in the clarinet with a minor third—all with the same articulation and similar rhythms. These together recapitulate the 6 notes and the dyadic partitioning (P4, m3, M3) of the previous ATH. Immediately following this is a sudden accented forte D4 in the marimba, marking off another of its slow pulsations, and the start of the third section.

The first pc to appear outside of the previous ATH occurs on the very final note of m. 20. This note is striking since we have not heard anything outside this ATH for three and a half bars. The new pc, 0, is accented in the marimba and begins a new ATH, of which the remainder plays out in the flute and clarinet. When the marimba reenters with a repeated G#4 at the end of m. 22 at its next pulse, it marks the end of the ATH and the beginning of a full statement of the aggregate (see Fig. 3.6). Again, the rest of the
aggregate is distributed between the flute and clarinet, save for the last pitch class, D, which is played by the marimba, after nearly four bars of silence, at the beginning of m. 25, along with a repetition of the G# that started it.

**Figure 3.6** Marimba pulse cues

The marimba’s reentry at m. 25 begins a new group, marked not only by its rearticulation of its slow pulse, but also by the switch to hard mallets, altering the sound quality of the instrument, and by the texture’s temporary return to the fast tremolos of the
previous section. Sandwiched in the middle of this very sparse and quiet section, measures 25-26 are accented by the sudden increase in density, and by a dynamic level that will be unsurpassed for the rest of the piece. They also contain the greatest density of ATHs in the entire work, as diagrammed in Figure 3.7. The marimba darts through a series of 0167 sets, mostly partitioned into two tritones, in a chain of T1 transpositions. The 0167s complete a full cycle, rotating through a tritone until the respective pitches of each tritone have exchanged places. (In fact, the cycle keeps going for one more notch, although the final 0167 in the marimba does not jump between the high and low registers as the others did, but remains within a single octave.) Meanwhile the flute and clarinet play through their own independent lines pairing their pitches, mostly in ic4s that combine with the marimba’s 0167s to create ATHs. On the figure, the line connecting each red-boxed pc pair to a blue-boxed 0167 indicates an ATH.

**Figure 3.7** Diagram of 0167 chain and CUP

This is a nice example of the Complement Union Property, mentioned above (p. 21).
The flute and clarinet abruptly exit this tight structure in contrary motion on an accented \textit{forte} (see Fig. 3.8). Then, after a miniature solo from the marimba, the phrase ends with the final dynamically and registerally accented pitch falling on the marimba’s pulse. When the flute and clarinet reenter in the following bar, over their highest and lowest pitches (respectively), it is clear that their dynamics are changing together and that (recalling their relative motion in m. 26) their contours are moving in almost exact contrary motion—another instance of clear imitation, like the transposition in mm. 4-8 and the inversion in mm. 11-14. The imitation is inexact, however, since it occurs within yet another ATH.
During the next seven measures, still using the hard mallets, the marimba chimes in now and again—each stroke marking off a pulse of its polyrhythm, while the flute and clarinet, still imitating each other in contrary contours, alternate single pitches forming another ATH. The imitative textures as well as the transformation in the marimba (as...
shown in Figure 3.8 above) from mm. 28-32 help to illuminate another underlying structure: a symmetrical ten-note chord around the pitch C#5. At m. 35 the marimba switches to soft mallets, and its attack (though not a polyrhythmic pulse) coincides with the beginning of the next section.

Section 4

The entry of the flute in m. 35 initiates a distinctive new texture. The flute and clarinet, instead of alternating single pitches, alternate long melodic lines with sporadic accompaniment from the marimba. Each instrument passes the melody to the other, such that there is one long legato line, hardly broken, which runs all the way to m. 53. For example, shown in Figure 3.9, the flute begins by playing <2, 8, 1, 9, 3, 5> —an ATH— after which the melody passes seamlessly to the clarinet. Rather than playing another ATH, the clarinet plays, when combined with the G# and C of the flute, the remainder of the aggregate and thus the ATH’s complement: a sc 012568.
As shown in Figure 3.10, the next six pitches of the melody following that in the flute <5,9,3,t,4,1> also form an ATH, as does the ensuing fragment <9,3,e,2,7,8> in the clarinet. Gradually the instruments begin to overlap their ATHs rather than playing them independently, and the marimba becomes included in the process. This slowly changes the ATHs from melodies to simultaneities. At the beginning of this section in m. 35, the first two melodic ATHs were answered by the remainder of the aggregate, first with the clarinet (as shown in Fig. 3.9), and then the second time with both remaining instruments (as shown in Fig. 3.10). However, for the remaining ATHs in the segment, the accompanying instruments consistently fill in an incomplete aggregate, with only one pitch class missing in every case. Although the weaving melody between the clarinet and flute continues through until m. 53, the pattern of creating ATHs appears complete in m. 43.
Figure 3.10  Gradual ATH overlap
Section 5

At m. 53 there is again an audible change in texture as the clarinet begins a quick tremolo and the marimba, retaking its soft mallets follows suit by playing in steady 32\textsuperscript{nd} notes, very occasionally broken by a sixteenth rest. Meanwhile, the flute takes the melodic line over as an extended solo, moving through a series of long held notes. Thus begins the final section of the piece, which brings to a head the processes that have been developing. The instruments play very distinctively from each other, but they also increase their cooperation to create consistent harmonic structures. Furthermore, the traits of each of the previous sections seem to all come together here, in a kind of recapitulation of the previous material. The flute’s long legato notes extend the texture of the last section, while at the same time, the clarinet and marimba play through a series of tremolos reminiscent of the second section. At mm. 56-57, all instruments switch briefly to a sparse, pointillistic texture that recalls the third section: the clarinet switches temporarily to a \textit{marcato} articulation, while the flute exchanges its long notes for fast staccato ones. Both instruments, having been in a state of cooperation for approximately 20 bars suddenly act (in a moment of contrast) completely independent of one another, as if in a state of temporary disagreement. But then the previous texture immediately resumes.

At m. 61, the clarinet rejoins the flute with long legato notes, but instead of alternating as in the last section, they play simultaneously, recalling the woven texture of the opening section. This texture begins to crumble around m. 65, just as the flute sustains its highest pitch for more than half the bar. The marimba, which has kept the steadiest time throughout this piece, suddenly acts as if it is lost. After announcing its
pulse in m. 64 over a trichord (013), it resorts to meekly playing single pitches, all of which fall in-between the subdivisions of its pulsations, before resting for two beats at the end of m. 65. It is as if Carter purposefully sets up disorder to emphasize its resolution. Note too, that m. 65 is the only bar of the whole piece that isn’t notated in 4/4 time; there are an extra two beats. Nor are there any of Carter’s favorite harmonic structures found here, such as ATHs or AITs, which, as we have seen, have been scattered fairly consistently throughout prior to this point.

Finally, the marimba resumes its slow pulsation with a *forte* tetrachord in m. 66, followed by four more tetrachords on every one of its pulse-subdivisions. (See Fig. 3.11.) The flute passes its F-Ab tremolo to the clarinet, followed by an Eb-Ab, before they split the dyad in a cooperative effort, crescendoing towards m. 69, all the while the three are creating a chain of ATHs that continue right until the final note of the piece.
The final two bars appear chaotic as suddenly in a cacophony of sound, each of the instruments pour through the same six notes of an ATH \{D5, F5, Ab5, A4, C#5, Eb5\}, but in different orders and speeds, reminiscent of the “A-material” from Esprit 1. (A second ATH occurs here, with the same pitch class content as the original ATH, except that a G is substituted for the Eb.)
**Surprise Ending**

The chaos of the last two bars is interrupted dramatically by a quarter note silence, after which the piece ends by all three instruments announcing the unison *fortissimo* E5! Not only does the last pitch complete the aforementioned harmonies, but it also creates an allusion to the completion of the long-range polyrhythm, by completing the piece on the same pitch with which it began. Ironically however, the final coincidence point of all three instruments’ slow pulse is *not* on the unison E, but rather on the onset of the preceding rest (on the third beat of the last bar). The delay certainly emphasizes the sudden unison, which not only completes the ATH, but also concludes the one and only literal statement of the Boulez motto in the piece. This means that the pause before the final E5 also delays a note which is expected to provide resolution to the piece, in much the same way that a classical composer might create suspense by delaying the final resolution of a dominant chord to its tonic.

**Conclusions**

The underlying polyrhythmic structure and the musical realization of it are much more straightforward in Esprit 2 than in Esprit 1. For one, the pulse streams for each instrument are particularly audible here, due to their obvious regularity. Nor are there any complicated metric modulations or frequent changes to the time signature. Furthermore, as mentioned, the sections are rarely dense in texture, and all are relatively long, allowing ample time to digest the various components which comprise the common traits of each. This permits the listener to more clearly perceive surface changes in texture and rhythm which commonly act as cues to beginnings or endings of the
overarching sections, which themselves usually indicate important boundaries for the completion of aggregates, ATHs or other similar harmonic structures.

It is striking how much development has taken place from Esprit 1 to Esprit 2 with regards to the instruments’ level of cooperation. In the former piece the repertoire of intervals was distinct to each instrument, yet from the very beginning of Esprit 2 the instruments share the same intervallic vocabulary, thus eliminating the barrier that previously distinguished them and impeded communication. In addition, the instruments in Esprit 2 collaborate more closely in completing important motivic harmonies. Recall that in Esprit 1 there were only two main sections (the tremolo sections) where it was clear that the instruments were supporting each other in the creation of such sets (in both cases, a chain of AITs), however in Esprit 2 we have seen how in almost every section the instruments combine to produce ATHs, aggregates, AITs, or other such recurring harmonies. All of these traits point towards an increase in unity. As will be seen in the next chapter, the last piece of this trilogy proves to be the most structurally transparent and, as the title Retrouvailles suggests, continues this trend in unification and acts as a musical epilogue to the previous two pieces.
Chapter 4: Retrouvailles

Out of the trilogy, Retrouvailles is the most accessible piece. It is quite short, only three pages and less than two minutes in length, and it is for solo piano, which naturally limits the timbral contrast and the possibilities for complex metric configurations. In addition, its accessibility is enhanced by Carter’s frequent reduction of the music to a single line. This monophonic texture helps the listener to process the incoming musical information, and to be more aware of changes in articulation, or recurring rhythmic motives, pitches, or contours—all of which appear frequently. These changes at the musical surface induce segmentation boundaries, much like in the previous two pieces, that create the musical form. The monophonic texture also serves an additional purpose. As I have shown in the first two chapters, the previous two pieces can be seen as representative of a musical debate between instruments. As the two (eventually three) instruments display their individual personalities by making use of particular idiomatic gestures, a conversation unfolds, with varying levels of agreement and disagreement correlating to the degree of musical cooperation between the instruments. From such a perspective, the final installment of the “hommage à Boulez” trilogy can be viewed as a reconciliation, since it appears that there are no longer two musical lines, conversing back and forth, but rather, one musical line, shared between the hands of a single person. This symbolism can be extended further. The title “Retrouvailles” roughly translates as “reunion,” and accordingly, since this piece was written for a solo instrument, it can be seen as a merging of the multiple lines and musical

ideas from the previous pieces into one. Thus *Retrouvailles* acts as a conclusion to the previous two pieces.

**Grouping Structure**

Although the piece does not contain a polyrhythm as its underlying structural agent, it still contains many of the same formal processes as Esprit 1 and 2. I hear seven sections in the piece plus an introduction and some transitional gestures. These tend to line up with the changes in expressive markings (as in Esprit 1), the majority of which are recalled from the previous pieces, namely, *leggero, cantabile, espressivo,* and *marcato.* The sections therefore can be heard as initiated by these shifts in texture, but also frequently line up with moments of pause, or changes in rhythm. Due to the brevity of the piece, the “sections” are here merely phrases, though they hold the same formal weight, relative to this short piece, as the larger sections in the previous two compositions. However the boundaries between sections are generally less clear, as the piece has a very quick tempo, and additionally, some sections are incredibly short, often making it difficult to grasp the changes in texture, as they pass so quickly. Furthermore, it can be hard to differentiate between a quick transitional gesture and a short segment, or more often, whether a short pause or fleeting gesture marks the beginning of a new phrase, or the continuation of the previous one. I attribute this difficulty to the nature of the piece: as it seems to embody a trend of growing acceptance and amicability, it is logical that there will also be less abrupt transitions between sections.
Introduction

The opening phrase is uncharacteristic of the rest of the piece, in that it quickly moves through a variety of articulations and rhythms, while remaining confined to a small fixed-pitch collection \{Bb4, C5, A5, E4, G#/Ab4, D#6\}. (Most of the other phrases in the piece are not unified in this way.) Together these form an ATH. Only the D7 (m. 3) does not belong to this ATH, and immediately after it, there is a short pause, followed by a quick forte reiteration of the same six pitches over a 32\textsuperscript{nd} note rhythmic motive—the fastest rhythm in the piece, as well as one of the only times the hands play homophonically. To reinforce the grouping provided by the pitch material, Carter employs a few other techniques to bind measures 1 to 4 together as a segment. The line is consistently partitioned into trichordal groups, circled on Figure 4.1, by swift changes in articulation and attack density. Furthermore, the double-downward contour of the trichords in m. 4 answers the earlier three trichords which all end with an ascending contour. Note that the first four notes of the piece spell out the Boulez motto, although the separation of the \(<E>\) from the \(<Bb, C, A>\) that precede it distract the listener from that harmony, and instead focuses on the separated trichord, while the pitch repetition helps one to notice the ATH.\textsuperscript{17} Recall that the Boulez motto played a more prominent role in Esprit 1, whereas Esprit 2 focused quite explicitly on the ATH. In Retrouvailles both harmonies play an active role.

\textsuperscript{17}In his program notes to Retrouvailles, Carter states “The score returns to the [Boulez] motto used in my [Esprit 1 and Esprit 2]. Retrouvailles begins by recalling the end of [Esprit 2] and ends by recalling the opening of [Esprit 1].”
The special design of the opening four measures give them an introductory feeling, much in the same way that the introductory measures of Esprit 1 has an entirely different texture, contour and sense of timing than the remainder of the piece. While the reiteration of pitches lends coherence to the phrase, generally speaking, rhythm and articulation act as the main aural guide to the formal segmentation of the rest of the piece. Nevertheless, the boundaries they create tend to align with changes of significant pitch collections. Thus the former tends to aid in the analysis of the latter.

Section One

After the 32nd-note motive at the end of m. 4, the musical texture returns to monophonic, beginning a new phrase with a new expressive marking, leggero, and a mildly faster pace (See Fig. 4.2). The relatively consistent triplet-sixteenth notes create continuity for this section and also across several important discrete pitch configurations. These are shown in the Figure as a nearly exact palindrome around the C5 (marked mezzoforte in m. 7), lasting from the downbeat of m. 7 to the C#4 near the middle of m. 8. The forte Bb4 in m. 7 is actually the last note of a retrograde presentation of the
Boulez motto. On the other side of the *mf C5* is a forward spelling of the Boulez motto (albeit with a repeated C5 this time). On either side of the Boulez mottos is the same ATH in near-mirror image of itself. Another jumbled statement of the Boulez motto appears late in m. 8, although it falls outside this palindrome. Lastly, the material from the opening of this section is recalled towards the end, perhaps in loose continuation of the palindrome idea, as shown in the figure below.

**Figure 4.2** Palindrome around C5 in m.6
Immediately following this palindrome, the hands begin spreading outwards and crescendo to *fortissimo* at the end of m. 8. This is the widest gap between the hands in the whole piece, at 6.5 octaves.

**Motives**

Even in the short span of time since the start of the piece, it is evident that this piece involves several pitch and rhythmic motives. For example, the just-noted Boulez motto occurs three times in mm. 7-8, immediately followed by another instance which overlaps the transition and the next segment entering at m. 10 (see Fig. 4.3). All of these, except for the motto which appears at the end of m. 8, contain the same pitches (m. 8 has two pitch classes displaced: a Bb2 and E6). For another example, the abrupt, memorable 32\textsuperscript{nd} note motive, which appeared at the end of m. 4, appears again in m. 24, with the hands moving in contrary motion, but with the same *forte* marking and having a similar function: it appears right before the entrance of a new segment.

The material in m. 9 can similarly be seen as a recurring motivic feature, though its recurrences are less exact. Its four pitches, which form a sc 0127 (marked in Fig. 4.3), are interruptive, since it is sparse in texture relative to the previous and following materials. We might hear it as a transition after the massive climax of m. 8. It is one of a family of related transitional gestures in this piece. In mm. 21-22, the same four pitch classes also serve as a transition between two sections, and with similar spacing to the chord in m. 9, only with longer note values. The next transitional gesture occurs at m. 27. This tetrachord, though a different set class than the previous gestures (it is a 0148), closely resembles the one from m. 21, as it has an identical contour and similarly lengthy
durational values. It can further be seen as a recurrence of the transitional tetrachord from m. 9, as they both dramatically interrupt a steady stream of fast sixteenth and triplet sixteenths that run without pause for two and a half measures. All the tetrachords mentioned all can be seen not only as transitional, but perhaps also cadential, especially the ones at m. 21 and m. 27, which provide a slow, winding down to the end of a segment. This slow-unfolding-tetrachord technique can also be seen in the final measures of the piece, over a presentation of the Boulez motto, interestingly, with the exact opposite contour of the gestures of both mm. 21 and 27.

**Figure 4.3** Recurring tetrachord motive

Section Two

Texture and rhythm play an important role in articulating the grouping structure of the rest of this piece, too. The section beginning just before m. 10 is a perfect example (see Fig. 4.4). It stands out as the most memorable, because it differs from the rest of the piece in every aspect. Its beginning is signaled by a change in articulation to *legato*, and by the texture split into multiple parts. The upper voice, which by the slur and dynamic
marking, seems to be the more prominent, plays dotted eighth rhythms then switches to regular dotted quarters halfway through m. 11. At this same point the dynamics move to the first piano marking of the piece over the character change to cantabile, and there is a move into the lower register. Here too, the left hand introduces a new rhythmic idea (eighth-followed-by-triplet sixteenth), which reappears sporadically until m. 16. But these changes at m. 11 do not sound like a new phrase because of the textural and pitch elements that carry over from m. 1. For instance, the B3 returns three times within a few seconds between measures 10 and 12. This is very audible, not only on account of the frequency of its repetition, but because of the long durations of the notes at each recurrence.

**Figure 4.4** B3’s thrice return

Despite the unique characteristics that define this section, its ending (see Fig. 4.5) is perhaps the least clear of all the sections in the piece. These measures (mm. 14-16) are
different in some ways from mm. 10-13: the contour begins to ascend, the texture becomes monophonic, and a running triplet sixteenth rhythm of perfect fifths and tritones, sandwiching another (different) rhythmic and intervallic chain in m. 15, unifies them. This passage also contains one complete 12-tone aggregate, completed with the final Bb4. However, these changes are gradual, not abrupt, and there are no pauses or other indications of a grouping boundary. Therefore I believe the section beginning at m. 10 is meant to be understood as one continuous flow of activity through until the end of m. 16.

**Figure 4.5**

Left hand’s ascent back into upper registers

<table>
<thead>
<tr>
<th>Statement of aggregate begins</th>
<th>Aggregate complete</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Retourvailles</th>
</tr>
</thead>
<tbody>
<tr>
<td>© Copyright 2000 Hendon Music, Inc.</td>
</tr>
<tr>
<td>A Boosey and Hawkes Company</td>
</tr>
<tr>
<td>Reprinted by permission</td>
</tr>
</tbody>
</table>

**Section Three**

The material that enters in m. 17 (see Fig. 4.6) reworks the opening of the previous bar, and with similar rhythms. Both times a C#6 is followed by a D#4, and both of these gestures are followed by a G, although the G in both cases is less striking due to its brevity. However, unlike the repeated B3-D3 gestures in the previous section, the immediate reiteration of this material coincides with a new section beginning, for several
reasons: it follows a short pause (and breath mark on the score), m. 16 ends a statement of the aggregate, and, most clearly, m. 17 states a T3 transposition of the Boulez motto (although not literally in pitch space). The rhythm alternates durations of a dotted quarter or more with short triplet sixteenths, as it seesaws between the extremes of register. The large jumps, as well as frequent pitch repetitions, help to signal the presence of another unifying feature—an all-interval 12-tone chord, the first of the piece. An all-interval 12-tone chord is a collection of all twelve pitch classes, registrally ordered, that contains one instance of every unordered pitch interval (one through eleven) between adjacent pitches. All-interval 12-tone chords can be seen as part of Carter’s favoured harmonic vocabulary in other pieces, such as the Third and Fourth String Quartet, Night Fantasies, and In Sleep, In Thunder (Mead 1984; Schiff 1998: 36).
Figure 4.6  12-tone all-interval chord #1

all-interval chord begins

**T3 Boulez motto (0137)**

all-interval chord complete

0127
(same 4 pcs as m.9)

**ATH \{3,4,7,9,t,e\}**

**Adjacent interval series for the all-interval chord #1 (mm.17-24)**

**Central ATH**

RETROUVAILLES
© Copyright 2000 Hendon Music, Inc.
A Boosey and Hawkes Company
Reprinted by permission
Like the first major section of the piece (ending in m. 9), this segment begins to wind down (in m. 22) with a juxtaposition of the high and low register and with the same four pitch classes, forming a sc 0127 (recall the discussion of Fig. 4.3). Following this 0127, at m. 23-24, are two of the few vertical sonorities in the piece, a 014 trichord immediately followed by a 016 trichord. Together these form an ATH. As they reiterate pitches of the all-interval 12-tone chord, they do not create a new beginning. Note that this 12-tone chord begins with the Boulez motto and ends with an ATH, thus uniting the three basic harmonic structures of Carter’s late language.

Section Four

Succeeding this is a return of the familiar 32\textsuperscript{nd} note motive from the end of the introduction. This time the hands play converging trichords (sc 012 in the RH and sc 014 in the left). They again combine to create another ATH, but it is different from the previous one, and its pitches no longer belong to the 12-tone chord. The immediate contrast and reiteration of this motive articulates the beginning of a new section and, accordingly, the rhythms and textures from the music that follow it are reminiscent of the material that followed the previous 32\textsuperscript{nd} motive: swift sixteenths and triplet sixteenths under the marking leggero.

The notes in this section begin in the middle range of the treble clef but towards the end of m. 25 there is a jump down to a C#3 over a dynamic change to mf. This C#3 marks the boundaries of some important pitch collections. The sixteenths up until this C#3 form an ATH, and the five notes following it combine with the C# to form a
different ATH. At this point that same C#3 is repeated again, this time initiating a new all-interval 12 tone chord, indicated in Figure 4.7.

**Figure 4.7** 12-tone all-interval chord #2

ATH \{6,7,8,t,1,2\}  \quad ATH \{7,8,9,e,2,3\}  \quad ATH \{5,4,3,1,t,9\}

RETROUVAILLES
© Copyright 2000 Hendon Music, Inc.
A Boosey and Hawkes Company
Reprinted by permission

Adjacency interval series for the all-interval chord #2 (mm.26-31)
This all-interval chord is highlighted by the alternation of the left and right hands wedging outward, also exploiting the agility of the piano to maneuver quickly between these extremes as it grows louder. This idea of a crescendoing wedge recurs throughout the piece; it appears first in m. 8, then here in m. 26, then at m. 32 in a slightly different pattern, and then again over mm. 38-39. Where there are jumps between high and low register combined with clear repetitions in pitch, more often than not they are clues to the listener that an all-interval 12-tone chord is active. Strangely, however, this is not the case for the material at the beginning, circa mm. 8-9, nor is it the case for the closing material at mm. 38-39.

Section four ends after a complete statement of the all-interval 12-tone chord, with all pitches stated only once with the exception of the final F#5 and D4, which complete the slow 0148 closing motive (recall the “cadential tetrachord” idea from pp. 78-79).

**Concluding Sections**

The switch into the next segment is loud and abrupt. Once again, in m. 30, upper and lower registers are juxtaposed, but here the *fortissimo* marking combined with the accents creates an especially harsh quality to this opening, which sustains one of the all-interval tetrachords, a sc 0146. Even though the rhythms seem to make it clear that a new segment is beginning, the pitches linger from the previous segment’s all-interval chord. This continues until the texture shifts at m. 31, introducing the second short-lived series of simultaneities (the other only appearance was at mm. 23-24). Figure 4.8 shows that the last of these, a sc 014, acts as a common-tone pivot between two different all-interval
12-tone chords: the one that has been playing out since m. 26, and the ensuing chord, which continues through until the first Bb4 at the beginning of m. 33.

**Figure 4.8** 12-tone all-interval chord #3

Starting at the *forte* Gb5 in m. 32, the next phrase begins, unfolding the remainder of the third all-interval 12-tone chord as a stream of running triplet-sixteenth notes,
which, except for a few minor pauses in measures 33 to 34, are uninterrupted through until the next group of simultaneous chords arrive at the upbeat to m. 36. These chords are the thickest of the piece, and Carter has placed them all in the very lowest registers of the piano, crescendoing from forte to fortissimo—a suggestion that this is the beginning of the climax of the piece. Yet, it is unclear whether these chords comprise a section in themselves. They seem transitional since (like the chords in mm. 23-24) they have a slower attack density, take up little more than a single measure in total duration, and do not fit the previous nor following textures of fast triplet sixteenths. Furthermore, in m. 37 there is an expressive change to marcato, suggesting the beginning of another section at the point where the vertical chords cease.

In any event, what begins in m. 37 as another series of meandering triplet sixteenths turns, after half a bar, into a new texture, as single notes build into two-, then three-, then four-note chords. The hands quickly alternate, building momentum, and repel from each other until finally, over a fortissimo marking in m. 39, they reach their furthest separation, as the right hand hits the highest notes of the piece, \{Db7,Ab7\}. Interestingly, the final dyads in the left and right hand combine to create a sc 0127, the same sets that were seen as transitory in m. 9, and cadential in mm. 21-22.

After a brief sustain on this final right hand dyad, the last Boulez motto makes its statement over long sustained notes under the instructions “en dehors.” This final segment is particularly dramatic, not only on account of the accumulation in dynamic and velocity across the alternating chords, but also because of its huge mass of (pedaled) sound, which contrasts with the prior lack of vertical sonorities. It also brings a striking change in the pitch structure. Until this point, as we shall presently detail, there has been
an almost seamless stream of ATHs throughout the piece. Accordingly at m. 37, an ATH begins the final segment, but in m. 38, where the hands alternate chords, the ATH chain is terminated, and instead the two hands split into two inversionally-related, intersecting 0146-type sets. These 0146s prepare, perhaps, for the final 0137 Boulez motto. This too, brings a harmonic surprise, lingering on the last three notes, C-A-E, a very consonant sounding A minor triad. This consonant ending adds a final resolution to this movement’s themes of reconciliation and reunion—but possibly an ironic one, considering the music of the composer from whose name these notes are derived.

Figure 4.9  Simultaneous 0146 tetrachords

0146 related by pitch inversion about Bb3/A3

0146 {E3,F#3,Ab3,Bb3}

0146 {A3,B3,D4,Eb4}

Summary Overview

The ATH, as mentioned, plays a significant role in this piece, as the nearly continuous chain of them pass by, with little explicit emphasis, for most of Retrouvailles. Carter has, in effect, taken an incredibly small harmonic vocabulary and manipulated it in a number of ways, to provide the pitch material for the entire piece. The ATHs appear in
a variety of colours and shapes, as Carter plays with the use of spacing, rhythm, contour, articulation and texture. Although this gives the piece flexibility, and allows Carter to draw many pitch configurations while only using a single set, their versatility also has the unfortunate effect of making these sets difficult to identify. On the other hand, it provides another manifestation of this recurring theme of unification that we have already seen permeate the piece in various forms: fluidity between sections, a primarily monophonic texture, solo instrumentation, equality between hands and registers—and now, a harmonic foundation made from (almost entirely) a single type of pitch class set.

It is not only a minimization of harmonic vocabulary, but the way in which the ATHs appear consecutively with minimal overlap, that creates a loose harmonic fabric, and thus contributes to the overall simplicity of design in this musical composition. We have already seen how the monophonic texture helps the listener to focus on the changing details at the surface of the music, such as widely jumping contours, and the repetition of pitch material that can signify the presence of an all-interval 12 tone chord, and small recurring motives, such as the slow moving tetrachords or the Boulez mottos, which help to identify section endings. Despite the fact that there are no clear pulses to follow, clarity in this piece is enhanced by regular group length; the segments in Retrouvailles commonly fall into a classical-like structure of two and four bar groups, with transitional material between segments. One might object that without a regular pulse to follow it is difficult to hear any sense of grouping. However, since the tempo remains constant throughout, and the sections are all relatively short, I can hear the sections as having relatively equal durations. Thus, in the same sense that the chain of ATHs weaves a
consistent harmonic background, the phrase structure, although less so, similarly shows a kind of simplicity in construction reminiscent of music from the classical period.

Compared to Esprit 1 and 2, where we have seen that the textures can at times become quite dense, and the underlying formal designs complicated, Retrouvailles emphasizes reconciliation and unification in many aspects. This is evident in the simplicity of the surface structure: in the texture, fewer conflicting musical lines, and fluid transition from section to section; and in the underlying chain of ATHs, which, can be seen as the epitome of unification. Furthermore, there are many passages which utilize the alternation of the left and right hands, and this creates an additional sense of balance to the piece, as neither hand dominates the musical texture at any given time.

After analyzing the structure of Retrouvailles section by section, there remain a few questions which could be considered for future research on the topic. For example: what is the purpose of the all-interval 12-tone chords, and why, since Carter’s theme for this piece appears to be unification, are there three different all-interval chords? Why does the chain of ATHs not continue through the last section of the piece? And what is the significance of the palindromic activity in the first main section? Indeed, this piece has a lot of recurring material, but it does not often fit into a simple pattern. Take, for instance, the slow moving cadential tetrachords; or the two sets of vertical chords which sandwich the material from mm. 32-35. Is there further significance to these musical events that may have been overlooked? Perhaps these questions can be resolved in the future.
Concluding Remarks

This paper has only scraped the surface with regard to a comprehensive understanding of the compositional architecture of these three pieces, but by illuminating some of the underlying formal structures at work, it begins to expose the layers present in Carter’s compositional planning. In all three pieces we have seen that harmonic cues and changes in texture and articulation align with sectional boundaries, which often represent landmarks along the unfolding of a formal process. In the first piece, this formal scheme was a long-range polyrhythm which governed not only the sectional boundaries, but also the interaction between the instruments, as their levels of cooperation were seen to increase or decrease depending on their proximity to a sub-pulse coincidence point. In the second piece, although a long-range polyrhythm determines the duration of the piece and to some extent the sections within it, it is now the instruments’ behaviour that guides the form, rather than the reverse. This holds true even more so in *Retrouvailles*, as there is a complete absence of any polyrhythm guiding the length or sectional divisions. Only the textures and harmonic devices define segments.

Starting with *Esprit 1* and proceeding through *Retrouvailles*, one can see not only a loosening of a formal rigidity, but of a gradual increase in instrumental cooperation. It begins in *Esprit 2* with the abandoning of the intervallic segregation, and an increase in melodic and harmonic support: the instruments help to complete each other’s melodic lines and work together to create important harmonic sets such as AITs and ATHs. The idea of cooperation is brought to its maximum potential in *Retrouvailles*, where there is only one instrumentalist, whose left and right hand equally share a transparent, monophonic texture, filled with all-interval 12-tone chords and ATHs.
Although it is true that Carter’s writing techniques have shown a trend in decreasing complexity in his later years, the successive simplification evident in these three pieces has a more specific explanation. After analyzing and listening to each of these three pieces, it is clear to me that each successive work continues the ideas of the last. The apparent simplification, most evident in the increasing transparency of the textural and harmonic fabric results from a decline in conflict between parts. Thus together as an opus, Esprit 1, Esprit 2, and Retrouvailles can be seen to present a story of individuals slowly reconciling their differences and uniting together to achieve a common goal.

Some of the points addressed in this paper have the potential for further investigation. For example, do all chamber works of Carter’s that involve an “in-phase”\(^{18}\) large-scale polyrhythm at its structural basis, have the same ebb and flow of cooperation between instruments relating to the periods of conversion and diversion as was seen in Esprit 1? In Esprit 2 is there some regularity (since it's not the polyrhythm) that governs the instruments’ rough and smooth breathing patterns? Can it be shown that the regularity of the marimba’s pulsations is strong enough to entrain to? Is there a systematic process involved in the nearly unbroken chain of ATHs that pervades Retrouvailles? These questions, among potential other musical interrelationships in these three pieces, remain to be explored.

Currently, very little material exists on the subject of Carter’s works written after 1980, and common thought among many theorists is that Carter’s late works are substantially more straightforward than his earlier works. However, I hope that this

\(^{18}\)This term, taken from Link (1994: 8), means a polyrhythm where all instruments cycles begin and end together.
paper has helped to discredit that myth and shown that although Carter’s later works show an increase in textural clarity and a decline in rhythmic complexity, the layering present in his compositions remains intricate and fascinating. His late works continue to connect the small-surface details to the large structures that govern the form of the piece, and the conversational nature of the textures make his works not only incredibly colourful, but also some of the most accessible and approachable in the repertory of recent music.
Works Cited


Mead, Andrew. 1983-84. “Pitch Structure in Elliott Carter’s String Quartet No.3.” *Perspectives of New Music* 22/1: 31-60.


University Press. 377-414.


Sallmen, Mark. “Listening to the Music Itself: Breaking through the Shell of Elliott Carter’s *In Genesis*.” *Music Theory Online* 13/3


