Elliott Carter's
Second String Quartet:
Aspects of Time and Rhythm

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In contrast to the broad expanse of his First String Quartet, Elliott Carter's Second String Quartet seems to belong to a different, more condensed time world. The essentially linear, flowing character of the first quartet is replaced by a more fragmented, jagged one, containing virtually none of the literal, or nearly literal, recurrence of themes found in the earlier work. Gone also is the seemingly endless succession of different tempi arrived at through a vast array of metric modulations, replaced by a more tightly organized and strictly controlled framework of specific recurring tempi and, consequently, a less frequent employment of metric modulation.

The interaction of the instruments is also more systematized in the second quartet. While the first quartet presents a free interweaving of instrumental groupings and expressive associations, in the second quartet each instrument is imbued with its own "world view" and manner of playing—its own character; it is the sequence of combinations and juxtapositions of these characters that creates the very form of the piece.

Example 1 illustrates the character traits of the four instruments, each possessing its own unique repertoire of intervals and rhythmic and stylistic/expressive associations. The respective instrumental traits are apparent from the beginning of the work (see Example 2). Note that the interval repertoire of the instruments is adhered to quite
Example 1. Character Traits.

<table>
<thead>
<tr>
<th>Intervallic Associations</th>
<th>Rhythmic/Stylistic Associations</th>
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<tbody>
<tr>
<td>Vln. I m3, P5, M9</td>
<td>extremely varied, bravura style</td>
</tr>
<tr>
<td>Vln. II M3, M6, M7</td>
<td>regular, even rhythms; rigid, orderly</td>
</tr>
<tr>
<td>Vla. Tritone, m7, m9</td>
<td>expressive; &quot;odd&quot; rhythmic relationships (2:3, 3:4)</td>
</tr>
<tr>
<td>Vc. P4, m6, Octave + Tritone</td>
<td>impetuous, improvisatory; free accel. and rit.</td>
</tr>
</tbody>
</table>

strictly. (Major and minor seconds function as linking intervals and are available to all of the instruments.) Note also that the instruments employ only the smallest interval of their repertoire during the first ten measures of the piece. The wider intervals are introduced after the first metric modulation, as the overall register of the quartet begins to expand. These intervallic associations remain intact throughout the first two movements, and are completely abandoned only in the fourth, where cooperation, rather than opposition, is stressed.

The rhythmic and stylistic character associations of the instruments are also in evidence in Example 2. The cello has a certain amount of rhythmic freedom built into its part; a dotted line over a group of notes, as in mm. 1 and 5, indicates that the phrase is to be played as a continuous accelerando or ritardando, with the notes at the beginning and end of the phrase to be held their full length. The particular rhythms notated need not be strictly adhered to, but merely serve as guides to indicate the relative speed (and exact duration) of the figure. These phrases are sometimes quite long, spanning several measures; others, as in this example, are relatively short. This device provides the cello with its own frame of reference, freeing it from any attachment to a particular meter or pulse. It also gives the piece an added degree of flexibility, against the already fluid texture created by the use of metric modulation and a widely varied and stratified rhythmic language.

On the other extreme from the cello is the second violin, which typically plays very even, rigid rhythmic figures, functioning as the metronome of the quartet. The first
Example 2. Carter, String Quartet no. 2, Mm. 1-30.

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CARTER'S SECOND STRING QUARTET
violin has the most varied repertoire of rhythmic and stylistic gestures, ranging from even and regular to soloistic bravura playing. The viola typically presents odd rhythmic figures (2:3, 3:4, 3:5, etc.) and is expressive in character (reflected in its use of the glissando). Thus, through these various associations, each instrument is provided with its own unique personality, so that by having them play in character, Carter is able to present a complex of widely different and distinctive rhythmic levels and intervalllic references. The employment of such a strict system of character associations enables Carter to maintain a sense of focus and clarity throughout the piece. By so drastically limiting each instrument's resources he is able to effectively depict the change of moods and dramatic contexts acted out by the individual characters, presenting the listener with all aspects of the instruments' personalities. It is this focusing upon the various aspects of the instruments' personalities that generates the form of the piece as illustrated in Example 3.

Example 3. Overall Form.

Introduction
I Allegro fantastico (Violin I prominent)
Cadenza for Viola

II Presto scherzando (Violin II prominent)
Cadenza for Cello

III Andante espressivo (Viola prominent)
Cadenza for Violin I

IV Allegro (Cello prominent)
Conclusion

Each of the instruments is featured prominently in one of the four movements and in a cadenza, except for the second violin, which does not have a cadenza, but which is featured prominently in the Conclusion. The various relationships of the featured instrument to the other three create the dramatic interest of the quartet. There are no pauses between the movements, and distinctions between them are often blurred in order to keep the motion from one idea to another gradual and flowing. In the first three movements the three subordinate instruments mimic, in their own way (within the boundaries of their characteristic intervalllic and stylistic traits), the style and psychological outlook of the featured instrument, complementing its character. In the first movement the bravura style of the first violin is imitated by the other instruments. In the second, the playing becomes more rhythmic, strict and ordered, reflecting the second violin's personality. In the third, the violins and cello respond to the viola's expressiveness by bringing out the expressive aspects of their own characters.
Hence, these three movements present three different, simultaneous interpretations of the ideas presented by the "leader" of each movement. In the fourth movement, the distinctions between the instruments are broken down, with each freely employing the characteristics of the others. In the climax of the movement and of the piece (mm. 563-589), the four instruments join together in a long, large-scale accelerando which continues to the end of the movement, where the greatest density of the piece (rhythmic relations of 7:5:4:3) is reached. This grand accelerando is the ultimate extension of the small-scale free accelerandi featured in the cello throughout the piece, and represents the fourth movement's reflection of the cello's character. In the Conclusion, the instruments return to their characteristic intervals and styles. Now, however, an element of cooperation and interplay is added, to be seen in the manner in which the second violin ends motives heard in the other instruments, continuing its role of metronome for the group.

In the cadenzas, a different relationship between the soloist and the group, involving juxtaposition and conflict, is presented. In these sections the soloist is opposed to the rest of the group, and little or no cooperation takes place. The viola's expressive playing is ridiculed by the others, while the cello's expressive free accelerandi and ritards are confronted by strict, clock-like playing by the other three instruments. During the first violin's cadenza there is no accompaniment, leaving the soloist to fend for himself. Then, impatiently, the other three instruments commence with the fourth movement while the violin continues playing its cadenza. Throughout the movements and cadenzas we see rhythm as a formative and distinguishing element, particularly in the cello cadenza, where the opposition of free and strict time is most straightforward.

Example 4 illustrates perhaps the most innovative aspect of Carter's treatment of time and rhythm on a structural level, representing a logical extension and crystallization of the metric principles explored in the first quartet. Carter presents specific pulses in relation to the common beat unit, anticipating and preparing for approaching metric modulations, and later referring to previous tempi; thus, he creates a pool of specific tempi which can weave in and out of the texture at any given moment, regardless of what the common beat unit is at the time. Again limiting his resources, Carter employs a relatively small number of different tempi throughout the piece, creating different rhythm-

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¹For more information regarding this technique, see Robert Cogan and Pozzi Escot, Sonic Design (Englewood Cliffs, New Jersey: Prentice Hall, 1976), p. 284.

Example:

<table>
<thead>
<tr>
<th>Notated Measures</th>
<th>( J = 105 )</th>
<th>( J = 140 )</th>
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<tbody>
<tr>
<td>3 4</td>
<td>5 4</td>
<td>9 4</td>
</tr>
<tr>
<td>4 4</td>
<td>4 4</td>
<td>16 4</td>
</tr>
</tbody>
</table>

Pulse: 105

V2

Pulse: 140

V1, Va

Pulse: 112

Vc

Pulse: 46.7

V1, Vc, V2, Tutti, etc.
mic worlds which can be clearly defined. Thus, they may be hinted at, referred to, or singled out, in much the same manner as one refers to key centers or specific melodic ideas. This idea reflects a further extension of Carter's technique of anticipating future events or referring to previous events, seen often in the realm of melodic or thematic material.²

The chain of events which unfolds in the Introduction of the quartet (Example 4) demonstrates Carter's procedure. The tempo for the first ten measures of the piece is \( \frac{3}{4} = 105 \), although no clear quarter note pulse is established. In the fourth measure the second violin enters, playing a strict pattern of dotted-eighth notes. These dotted eighths, at a tempo of \( \frac{3}{4} = 105 \), represent a pulse of 140. The second violin continues with this dotted-eighth pulse through mm. 6 and 7. In mm. 8 and 9 it holds a minor third doublestop for six beats (note that this is exactly 8 beats, or two tied whole notes, in the 140 tempo). In mm. 9 and 10, in the other three instruments, the \( \frac{3}{4} = 105 \) pulse finally becomes somewhat clear, only to be pushed out immediately by the reappearance of the second violin and the 140 pulse. In m. 10 the dotted eighths of the second violin, through metric modulation, become the new quarter notes, resulting in the new pulse of \( \frac{3}{4} = 140 \). The second violin continues unperturbed, and now plays quarter notes, its rhythmic world not altered in the slightest. Obviously the new tempo in m. 10 has been anticipated and prepared for by the second violin, whose first entrance in m. 4 was already in that tempo.

With the arrival of the new \( \frac{3}{4} = 140 \) tempo, the second violin plays on for two measures and then stops. At this point, the viola begins presenting a basic pulse unit of a quarter note tied to a sixteenth note. This quickly dies away, but reappears in the cello in m. 19. At \( \frac{3}{4} = 140 \), the pulse of a quarter note tied to a sixteenth is 112, the tem-

²Notice, for example, that the opening interval sequence (P5, m6, tritone, M7, P4, m3), of the Conclusion section of the second quartet was anticipated in mm. 595-597. The additional staff, showing resultant intervals, presents this same interval sequence, repeated three times: the second and third presentations use the exact pitches of the Conclusion's beginning. This interval sequence has, in fact, been presented a number of times throughout the fourth movement, beginning in mm. 462-463.

Notice also the references throughout the piece to the first violin motive that begins the first movement, the only clearly recurring motive of the composition. These can be found in various forms in mm. 46, 78, 88, 378, and 409.
po which will be arrived at in m. 29. In addition, the viola in m. 17 and the first violin in m. 21 present the original pulse of 105. Already we are looking both forward and backward. In m. 24 the first violin presents a pulse of 46.7, one half the pulse 93.3, which will be the pulse of the viola and cello cadenzas.

Relatively long range connections are being set up here, as well as connections on the local level. The pulse rates of 105 (and 210), 112, 140, (and 70 and 280) and 93.3 with the later addition of 84 and 175, form the only recurring pulse rates in the entire piece. (60 and 163.3 are employed briefly and only once.) This is startlingly different from the First Quartet, where a countless number of different pulse rates are employed. Here the relationships among a limited number of specific tempi are explored in depth, and each is used as the basic pulse rate and as an intrusive pulse at various times and in various combinations.

Carter has limited the number of different pulses employed, perhaps in order to help make their recurrences and interrelations audibly recognizable. It is an amazingly consistent and coherent use of time manipulation as an integral part of the structure of a piece.

Even more amazing is the construction of the second violin's role of timekeeper. In the Introduction, the second violin enters with a pulse of 140 and continues in that pulse throughout the passage. In fact, it continues in that pulse (or the pulse representing its half, 70, or occasionally its double, 280) essentially throughout the piece. For example, when the common meter is \( \text{d} = 93.3 \), the second violin typically moves in triplet quarter notes, which, in this context, constitutes a pulse of 140, in the same manner as the dotted eighths in its opening entrance. When the common pulse is \( \text{d} = 175 \), the second violin typically moves in units of a quarter note tied to a sixteenth note, again 140. This relationship is exploited in the second movement, which is the second violin's showcase. The movement begins at \( \text{d} = 175 \), with the second violin moving in \( \text{d} (=140) \) patterns. Underneath its part is an alternate rhythmic notation showing the second violin in a straight \( \frac{4}{4} \) tempo, proceeding in quarters and eighths, and indicating that this is how the part should sound. The second violin does succeed in transforming the basic common pulse to \( \text{d} = 140 \), but soon the tempo returns to 175 again. This give-and-take dominates the movement and illustrates the basic relationship of the second violin to the other instruments: essentially, its insistence on keeping to a single strict time, whether the others are paying any attention or not! It not only serves as a moderating and clarifying influence on a local level, but also serves on the largest level as the representation and definition of an external time to which other, more varied rhythmic worlds and
time structures can be related.

In the third movement, distinctions between the instruments begin to break down, as illustrated by the exchange of characteristic intervals between the viola and cello at the beginning of the movement (see Example 5). In general,

Example 5. Mm. 286-290.

However, the individuals remain at least somewhat intact. The second violin begins to be treated more freely through this movement, a reflection of the influence of the expressive characteristics of the viola, which dominates the movement. Significantly, however, the entire movement moves at \( \frac{3}{4} = 70 \) (half of 140), so that the second violin remains in its characteristic tempo, though not treated as strictly as before. It is only in the fourth movement that it totally abandons its rhythmic world and role as clock, in order to join the other instruments in the one completely cooperative effort of the piece. In the Conclusion, the second violin returns to its constant 140 pulse. This section, like the beginning of the Introduction, has a tempo of \( \frac{3}{4} = 105 \). The second violin, usually pizzicato, retains an element of cooperation, as it steps in and ends the motives played by the other instruments. In doing so, it clearly comes into conflict with the \( \frac{3}{4} = 105 \) pulse, forcing motives to end in relation to its own 140 pulse and creating a rather unstable rhythmic/metric framework. The 140 pulse in the second violin is constant throughout the Conclusion. As in the Introduction, the second violin typically moves in dotted eighths, representing a pulse of 140 against the basic
Example 6. Mm. 617-End.
\( \downarrow = 105 \) pulse, as illustrated in Example 6. At the end of the piece, the second violin and the pulse of 140 have the last word, though the basic metric unit remains \( \downarrow = 105 \). This slight ambiguity at the very end of the piece is reflective of the complex and multileveled rhythmic ambiguities that permeate and give shape to the entire work.