CHAOS, COSMOS, AND COMMUNION: THREE MOVEMENTS FOR STRING QUARTET

THESIS

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements

For the Degree of

MASTER OF MUSIC

By

David W. Moran, B.M.E.
Denton, Texas
August, 1994
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The three movements of this piece are related proportionally in that movements one and two represent three-fifths of the length of the whole. Movement three represents two-fifths of the length of the whole.

Another proportional relationship exists between movements one and two. Movement one represents two-fifths of the length of the first two movements, while movement two represents three-fifths of the length of the two.

An additional link between the three movements is pitch content. Movements one and two have little in common in this regard, but movement three combines elements of the first two.

The duration of the entire piece is approximately fifteen minutes.
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The titles of the three movements of this composition are drawn from Tolstoy's *War and Peace*. "The stern somber choir," the title of the first movement, refers to the grieving of Natasha after the death of Prince Andrei. "It came in and it was death," the title of the second movement, is taken from Prince Andrei's death experience itself. "And his soul became calm and clear," the title of the third movement, is the phrase used to describe Pierre as his love for Natasha begins to unfold. The title of the entire piece, *Chaos, Cosmos, and Communion*, is original, and its three-part construction mirrors the individual titles of the three movements.

The length of each movement is determined by its relationship to the entire work. Movement one is 210 beats long, and movement two is 315 beats long. They are thus in a proportional relationship of 2:3. Movement three has 350 beats. The first two movements together thus represent three-fifths of the length of the whole piece, while the last movement represents the remaining two-fifths.

![Proportional relationships of the three movements](image)

Figure 1. Proportional relationships of the three movements
Although each movement has the same metronome marking, they all differ greatly in character. The first movement does not have a constant pulse. Rather, the pulse appears to come and go, with most of the melodic fragments revealing it briefly, and then allowing it to disappear back into the ambiguity of the accompaniment. The second movement is the only movement with a discernable pulse throughout. The third movement, like the first, does not have a constant pulse. Unlike the first movement, however, the pulse is revealed by two instruments playing in tandem, instead of by one instrument playing solo.

In terms of pitch content, the second movement is the most eclectic of the three. Octatonic collections and a B-flat minor scale provide the pitch material from which this movement is formed. The outer movements rely on hexachord collections for their sources of pitch material.

The Stem Somber Choir

The structure of the first movement is that of a series of solo fragments with accompaniment. These fragments are transferred from instrument to instrument, and the duration of each solo gesture is prefigured by the rhythmic and harmonic sequences inherent in the accompaniment.
The harmonic sequence is comprised of six vertical sonorities, played with harmonics, that are repeated throughout the piece, creating an effect similar to that of a chaconne.

The pitch content of the harmonic sequence is comprised of a set of six notes. The remaining six notes of the chromatic scale form the set containing the pitch content of the solo segments.

The rhythmic sequence consists of five durational values that are also repeated throughout the piece. With each successive repetition of the sequence, however, the length of each durational value
is decreased by one sixteenth-note. The initial sequence is made up of the following prime number/sixteenth-note durational values: 23, 17, 19, 19, 17. The first durational value therefore results in a sonority that is twenty-three sixteenth-notes in length, the second value results in a sonority that is seventeen sixteenth-notes in length, etc.

Because the order of the sonorities in the harmonic sequence never changes, variation in the accompaniment is effected through the changes in the rhythmic sequence.

The first five durational values (23, 17, 19, 19, 17) are arranged primarily in descending order. This descent reflects and corresponds to the descending order of the durational values throughout the piece.

By combining the harmonic and rhythmic sequences so that the harmonic sequence is played ten times, an isorhythmic matrix of sixty sonic events is produced. Each of these events has a specific durational value. As a result of the unequal length of the two sequences, the rhythmic sequence is played twelve times, while the harmonic sequence is played only ten. The two sequences converge exactly halfway through the matrix, and again at the end. The final sonority of the piece is a repetition of the initial sonority with the second violin adding a ninth.
With each repetition of the harmonic sequence, a new instrument takes over the solo obligation. The order of the ten solo episodes is as follows:

1. Violin 1
2. Viola
3. Cello
4. Violin 1
5. Violin 2
6. Violin 1
7. Viola
8. Cello
9. Violin 1
10. Violin 2
The nature of these solo segments is fragmentary. Though these fragments are separated by time, they are connected because they are all comprised of the same six notes, and because some of the fragments are repeated either in full or in part. The first fragment (in the first violin) is repeated as the last fragment (played by the second violin). The second fragment (played by the viola) is partially repeated in the penultimate fragment (performed by the first violin).

**It Came In and It Was Death**

The second movement begins with a canon at the descending major third between the violins. The canon is then taken over by the viola and cello but at a pitch level a major sixth lower than the original. The pitch material for this canon is drawn from an octatonic scale.

As the viola and cello repeat the canon, the violins interject with fragmentary countersubject material drawn from the canon subject.

The canon breaks up in measure 22, and a contrasting section begins in measure 23. The intervallic content of the initial sonority in this measure remains essentially the same with each succeeding chord through measure 37.
The shorter eighth and sixteenth-note rhythmic values introduced in measure 37 raise the intensity level and provide a short transition to yet another contrasting section which begins in measure 38. The pitch content for this section is taken from a hybrid form of the B-flat minor scale. This hybrid is formed by combining the ascending and descending forms of the melodic minor scale.

![Figure 5. B-flat minor hybrid](image)

This section begins in a lyrical manner and continues as such for fourteen measures. It then starts to intensify in measure 52, in much the same manner as the last section - with increased eighth and sixteenth-note activity. This heightened activity culminates in measure 58 with the first violin sustaining the 'G, while the other instruments interrupt with octaves on C.

The next section, a fugue, begins in measure 60. While the first violin states an embellished version of the subject from measure 60 to 63, the first unembellished statement begins in measure
64 in the second violin. The viola follows the second violin with the statement of the subject in measure 68, while the cello takes over in measure 73.

After each instrument states the subject, it states a countersubject. For instance, the first violin begins in measure 64 by stating the embellished subject, then continues by playing the embellished first countersubject. After a transition in measure 67, the second countersubject follows. A two-measure transition precedes countersubject three. The coda begins in measure 80 after another two-measure transition, and continues through the end of the movement.

All of the primary motives from this movement, with the exception of the one from measure 22, are based on the same two-interval set: a minor third and a minor second. The motive from measure 22 remains similar to the others, however, in that it is based on a minor third.

*And His Soul Became Calm and Clear*

Two duets form the basis of the structure of movement three. Duet number one, between the first violin and the viola, begins in measure 1. Duet number two, between the second violin and the cello, begins in measure 3. The character of the piece is one of sus-
tained pitches punctuated by occasional vertical intervals, with
glimmers of a pulse revealed by occasional metric patterns between
duet voices.

As a means of limiting the vertical intervals which could appear, the following parameters were set: The possible contrapun-
tal intervals between duet voices are major or minor thirds, and ma-
jor or minor sixths. The possible contrapuntal intervals between adjacent voices include all of the above intervals in addition to major seconds and minor sevenths.

The pitch material for each duet group is based on a hexachord from each of the previous movements. Duet number one is based on the fugue subject from the second movement. Duet number two is based on the harmonic sequence from the first movement.

Duet #1

![Figure 6. Duet #1 hexachord](image-url)
Duet #2

Figure 7. Duet #2 hexachord

The pitch content of these hexachords is expanded through the use of the following process: Starting at the extreme left of the hexachord, the inversion of notes one and two is determined. Next, the inversion of notes two and three is determined. This procedure is repeated for each of the additional two-note combinations, producing a five-note collection.

The inversion process is repeated with this new collection, yielding a collection of four notes. It is repeated again on each subsequent collection, producing collections which contain one less note than their predecessors. Eventually, the process yields a collection of only one note. This creates a six-level inverted pyramid of twenty-one notes.
Figure 8. Pitch derivations for duet #1
Duet #2

Figure 9. Pitch derivations for duet #2
The pitch order for each duet starts at the bottom of each pyramid. The upper voice of each duet starts at line five, while the lower voice starts at line six. Reading each line right-to-left, each voice proceeds upward until the upper voice completes line one, and the lower voice completes line two. At this point the process is reversed, and each voice proceeds right-to-left and downward. This continues until the end of the piece. The voices come to a stop after they complete the lines with which they began, their final notes identical to those with which they started.

The composition of this piece took place during a time of profound change in my life. Whether the composition process mirrors life, or whether life mirrors the composition process, I cannot say. I know that in my case the two became inseparable.
chaos, cosmos, and communion

I. the stern somber choir

David Moran
1994
con sord.

 senza sord.

(niente)
senza sord.

con sord.
senza sord.
sul G

26

27

27

27

pp

n

f
II. it came in and it was death

Doloroso J.72

Vln. 1

Vln. 2

Vla.

Vcl.

mp

mf
ff

fff

ff

p  sfz

p  sfz

mf  sfz

p  sfz
III. and his soul became calm and clear

Leggero $d=72$

sul tasto non vibrato

Vln. 1

$pp$ sempre

Vln. 2

sul tasto non vibrato

Vla.

$pp$ sempre

Vcl.

sul tasto non vibrato

sul tasto non vibrato

sul tasto non vibrato

naturale molto vib.

naturale molto vib.

$su$
nat. vibrato ordinario

sul tasto non vib.

f

mp

f

mp