

Canonic Offerings

for string quartet

Clifton Callender

2013

Canonic Offerings
For string quartet
Duration ~10'

Canonic Offerings is based on my work with canons that have an infinite number of solutions. These are maximally self-similar melodic lines that can be combined successfully and performed simultaneously by any number of voices, each voice at its own tempo yielding either rational or irrational tempo ratios, with the melody moving either forward or backward. In *Canonic Offerings* I have selected a small number of these combinations based on three such melodies, attempting to give the flavor of the combinatorial possibilities within the context of a unified (and finite) composition.

Canons two, four, and five are based on the concept of continuous *accelerando* throughout. Arrows from one tempo marking to another indicate a continuous acceleration from the first to the second tempo. The changes of tempo should be as smooth and steady as possible. For practical notational purposes, faster tempos are regularly reinterpreted as slower tempos using *metric modulation*. For example, a tempo indication of $\text{♩} = \text{♩} = 60$ means that the tempo at the end of the previous measure is $\text{♩} = 60$. The half note is then reinterpreted as a quarter note, so that the tempo at the beginning of the measure is $\text{♩} = 60$. All tempo indications are relative to an initial tempo of $\text{♩} = 72$. If the initial tempo is slightly faster or slower than $\text{♩} = 72$, then all of the subsequent tempo indications will need to be adjusted accordingly.

The complex tempo ratios (e.g., 11:4, 28:12:7:3, and $\sqrt[4]{8}$) in canons two, four, five, and possibly three require the players to use click tracks for synchronization. These click tracks are stereo files that contain separate tempo tracks on the right and left channels. Players should listen only to the single channel that is indicated for their part.

Click tracks are available by contacting me at clifton.callender@gmail.com.

Canonic Offerings

Score

Introduction / Canon 1

Clifton Callender

$\text{♩} = 72$

A

Violin 1

Violin 2

Viola

Cello

legato

mp

4

7

11

Vln. 1

Vlc.

Canonic Offerings
Introduction / Canon 1

14

Vln. 1

Vlc.

B ♩ = 120 *legato senza vib.*

light bow

Vln. 1 *mp*

light bow

Vln. 2 *mf*

pizz. l. v.

Vla. *mf*

light bow *legato*

Vlc. *mp*

23

Vln. 1

Vln. 2

Vla.

Vlc.

cresc.

cresc.

cresc.

cresc.

Canonic Offerings
Introduction / Canon 1

3

28

Vln. 1

Vln. 2

Vla.

Vlc.

Measures 28-32. Vln. 1: Triplet eighth notes, ascending and then descending. Vln. 2: Eighth-note patterns, ascending and then descending. Vla.: Half notes, ascending and then descending. Vlc.: Half notes, ascending and then descending. Measure 30 features a triplet in the Vlc. part.

33

Vln. 1

Vln. 2

Vla.

Vlc.

mf

f

pp

mf

Measures 33-35. Vln. 1: Triplet eighth notes, ascending and then descending. Vln. 2: Eighth-note patterns, ascending and then descending. Vla.: Half notes, ascending and then descending. Vlc.: Half notes, ascending and then descending. Measure 34 features a triplet in the Vln. 1 part. Dynamics: *mf* (Vln. 1), *f* (Vln. 2), *pp* (Vln. 2), *f* (Vla.), *mf* (Vlc.).

attacca

*sempre accelerando **

Canon 2

A $\text{♩} = 60$ *accel.* $\text{♩} = 60$ *accel.* $\text{♩} = 60$ *sempre simile*

Violin 2

f

Vln. 2

$\text{♩} = 60$ $\text{♩} = 90$ *p*

Vla.

$\text{♩} = 60$ *accel.* *f*

Vla.

$\text{♩} = 60$ *accel.* $\text{♩} = 60$ *sempre simile*

Vlc.

f

Vla.

$\text{♩} = 60$

Vlc.

mf f mf mp f mp p

* Click track is a stereo file. Violins 1 and 2 listen to the right channel; Viola and Cello listen to the left channel.

Canonic Offerings
Canon 2

♩ = 60

Vln. 1 *f*

Vln. 2 *f*

Vla. *f*

Vlc. *mf f mf mp f mp p*

♩ = 60

Vln. 1

Vln. 2

Vla. *mf f mf mp f mp p*

♩ = 60

Vln. 1

Vln. 2

Vla. *mf f mf mp f mp p*

♩ = 180

Vla. *mf f mf mp f mp p*

Detailed description: This page contains the musical score for Canon 2 of 'Canonic Offerings'. It features four staves: Violin 1 (Vln. 1), Violin 2 (Vln. 2), Viola (Vla.), and Violoncello (Vlc.). The score is divided into four systems. The first system shows the initial entries, with Vln. 1 and Vln. 2 starting in 3/4 time at a tempo of 60 beats per minute. Vln. 1 begins with a forte (f) dynamic. Vln. 2 enters later with a forte (f) dynamic. The Viola and Violoncello enter with a forte (f) dynamic. The second system continues the development, with Vln. 1 and Vln. 2 playing sustained notes. The third system shows the Viola and Violoncello playing a rhythmic pattern. The fourth system concludes with a tempo change to 180 beats per minute for the Viola and Violoncello. Dynamics include forte (f), mezzo-forte (mf), mezzo-piano (mp), and piano (p).

Vln. 1

Vln. 2

B

$\text{♩} = 160$
 $\text{♩} = 120$ ————— $\text{♩} = 90$ ————— $\text{♩} = 60$ —————

Vln. 1

Vln. 2

$(\text{♩} = 82.5)$ ————— $\text{♩} = 60$ —————

Vln. 1

Vln. 2

Vla.

Canonic Offerings
Canon 2

Violin 1 (Vln. 1) and Violin 2 (Vln. 2) parts are written in treble clef. The Viola (Vla.) part is in alto clef (C4), and the Violoncello (Vlc.) part is in bass clef. The key signature has one flat (B-flat).

First System:

- Tempo: $\text{♩} = 60$
- Violins 1 and 2: Play a complex rhythmic pattern with many beamed sixteenth notes and accents.
- Viola and Violoncello: Play a slower, more melodic line with a *mf* dynamic and a *cresc. poco a poco* instruction.

Second System:

- Tempo changes: $\text{♩} = 90$ followed by $\text{♩} = 60$.
- Violins 1 and 2: Continue with complex patterns, including *al f* (all fortissimo) and *cresc. poco a poco* markings.
- Viola and Violoncello: Continue with a steady rhythmic accompaniment.

Canonic Offerings
Canon 2

8

First system of musical notation for Canon 2, featuring Violin 1 (Vln. 1), Violin 2 (Vln. 2), Viola (Vla.), and Violoncello (Vlc.).

Tempo markings: $\text{♩} = 60$ and $\text{♩} = 90$.

Dynamic markings: *al f* (allegro forte).



Second system of musical notation for Canon 2, featuring Violin 1 (Vln. 1), Violin 2 (Vln. 2), Viola (Vla.), and Violoncello (Vlc.).

Tempo marking: $\text{♩} = 60$.

Dynamic marking: *cresc. poco a poco* (crescendo poco a poco).



Canonic Offerings
Canon 2

$\text{♩} = 180$

Vln. 1 *al f possibile*

Vln. 2 *al f possibile*

$\text{♩} = 60$

Vla.

Vlc.

$\text{♩} = 180$

Vla. *al f possibile*

Vlc. *al f possibile*

$\text{♩} = 90$ (click track ends)
senza vib., semplice
poco accel. *molto ritardando*

Vln. 1 *p*

Vln. 2 *p*

Vla. *p*

Vlc. *p*

attacca

Canon 3

A $\text{♩} = 101$ *con sord.* *legato cantabile*

Violin 1 *ppp* *p*

Viola $\text{♩} = 101$ *con sord.* *legato cantabile* *ppp* *p*

Cello $\text{♩} = 72$ (*senza sord.*) *legato cantabile* *ppp* *mp*

5

Vln. 1

Vla.

Vlc.

10

Vln. 1

Vla.

Vlc.

* Stereo click track is available. Violin 1 and Viola listen to the right channel; Cello listens to the left channel.

Canonic Offerings
Canon 3

15

Vln. 1

Vla.

Vlc.

8^{va} 8^{va}

20

Vln. 1

Vla.

Vlc.

8^{va}

26

Vln. 1

Vln. 2

Vla.

Vlc.

$\text{♩} = 120$

B

poco sul pont.

f

p

legato

f

poco sul pont.

ppp

p

f

pp

Canonic Offerings
Canon 3

12

32

Vln. 1

Vln. 2

Vla.

Vlc.

p

mp

legato

f

mf

37

Vln. 1

Vln. 2

Vla.

Vlc.

43

Vln. 1

Vln. 2

Vla.

Vlc.

Canonic Offerings
Canon 3

49

Vln. 1

Vln. 2

Vla.

Vlc.

f *sub.* *mf* *pp*

p *mf* *pp*

p *pp*

pp

The musical score for Canon 3, measures 49-54, is written for four staves: Violin 1 (Vln. 1), Violin 2 (Vln. 2), Viola (Vla.), and Violoncello (Vlc.). The key signature is B-flat major (two flats). Measure 49 begins with a first violin part featuring a series of eighth notes and a dynamic marking of *f* with a *sub.* (sustained) marking. The second violin part has a dotted half note. The viola part has a dotted half note. The cello part has a dotted half note. Measure 50 shows the first violin part with a dynamic marking of *f* and a *sub.* marking. The second violin part has a dotted half note. The viola part has a dotted half note. The cello part has a dotted half note. Measure 51 shows the first violin part with a dynamic marking of *mf* and a *sub.* marking. The second violin part has a dotted half note. The viola part has a dotted half note. The cello part has a dotted half note. Measure 52 shows the first violin part with a dynamic marking of *mf* and a *sub.* marking. The second violin part has a dotted half note. The viola part has a dotted half note. The cello part has a dotted half note. Measure 53 shows the first violin part with a dynamic marking of *mf* and a *sub.* marking. The second violin part has a dotted half note. The viola part has a dotted half note. The cello part has a dotted half note. Measure 54 shows the first violin part with a dynamic marking of *pp* and a *sub.* marking. The second violin part has a dotted half note. The viola part has a dotted half note. The cello part has a dotted half note.

attacca

Canon 4

V.1 {

V.2 {

va. { $\text{♩} = 120$ ritardando
pp cresc.

vc. {



{

{

al $\text{♩} = 120$ rit.
al f



$\text{♩} = 180$ ritardando

mp

f

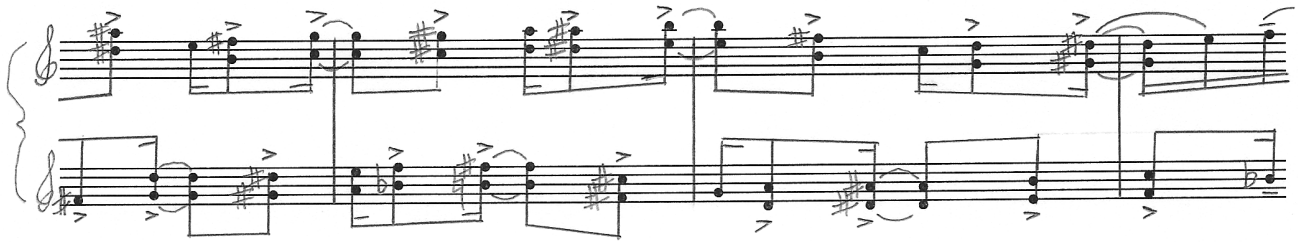
mp

f

Text

al $\text{♩} = 120$ rit.

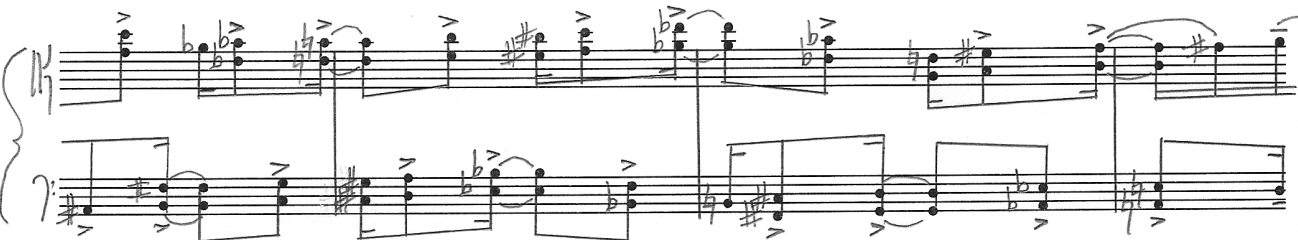
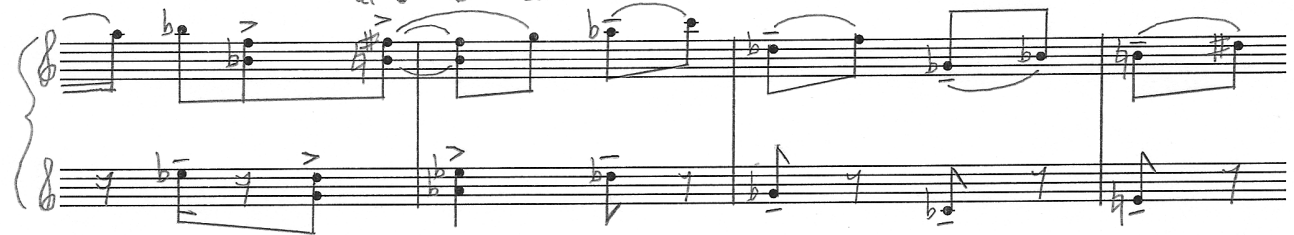
* Click track is a stereo file. Violins 1 and 2 listen to the right channel; Viola and Cello listen to the left channel.



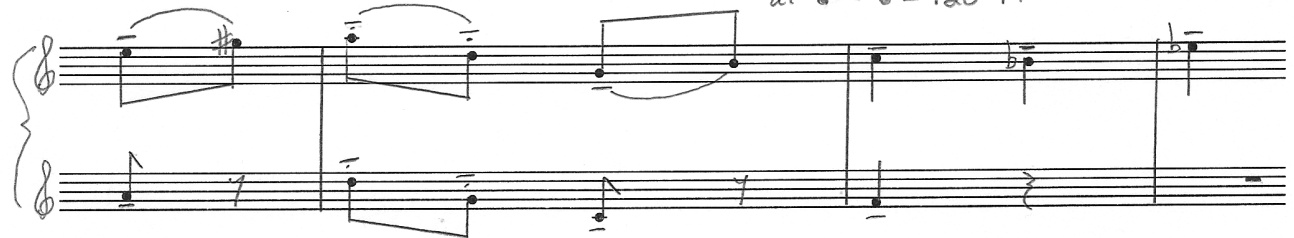
al $\text{♩} = 180$ rit.



al $\text{♩} = 120$ rit.

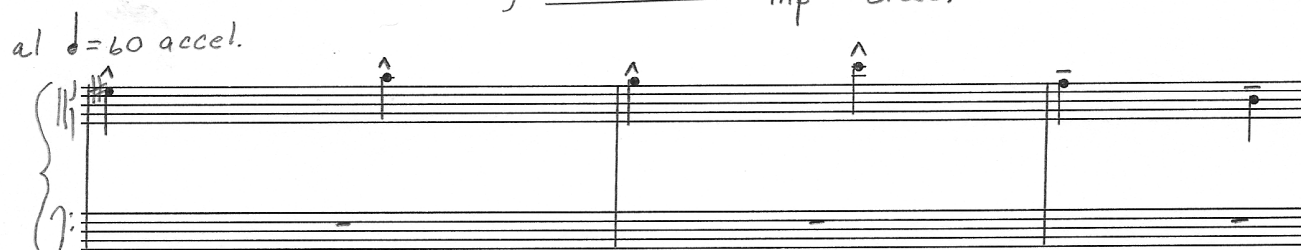
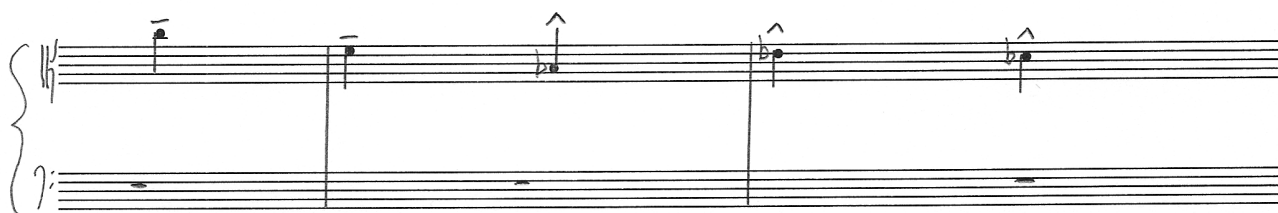
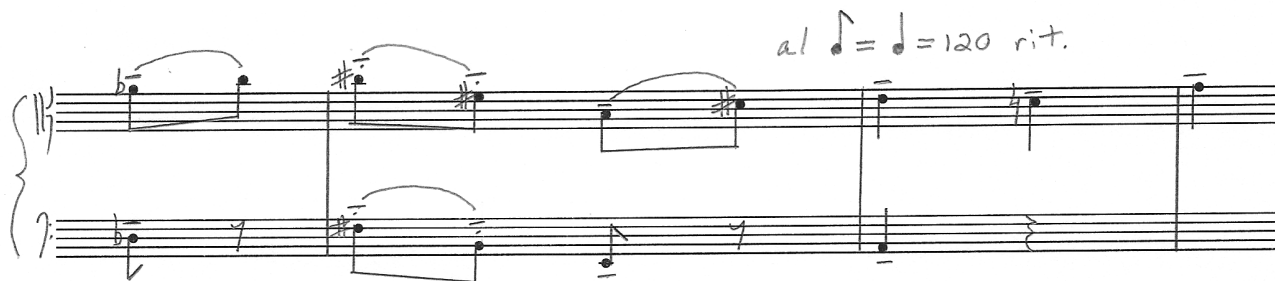
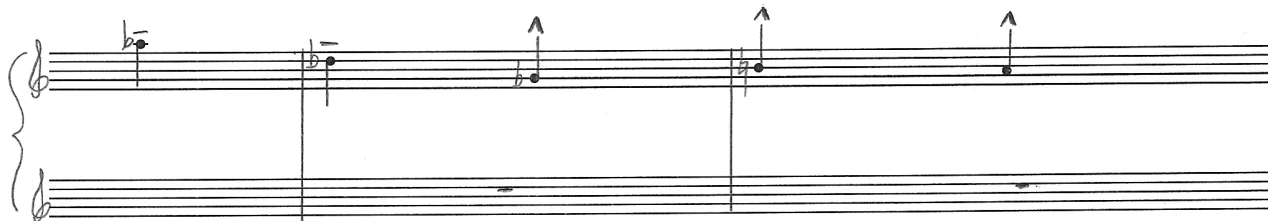


al $\text{♩} = 120$ rit.



al $\text{♩} = 120$ rit.



Canonic Offerings
Canon 4

al $\text{♩} = 60$ accel.

Handwritten musical score for Canon 4, first system. It consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The music features various notes, rests, and accidentals, including sharps and flats. There are also some handwritten markings above the notes.

al $\text{♩} = 60$ accel.

Handwritten musical score for Canon 4, second system. It consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The music features various notes, rests, and accidentals. Dynamic markings include *mp* (mezzo-piano), *cresc.* (crescendo), and *f* (forte). There are also some handwritten markings above the notes.

Handwritten musical score for Canon 4, third system. It consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The music features various notes, rests, and accidentals. There are also some handwritten markings above the notes.

al $\text{♩} = 60$ accel.

Handwritten musical score for Canon 4, fourth system. It consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The music features various notes, rests, and accidentals. There are also some handwritten markings above the notes.

al $\text{♩} = 180$

Handwritten musical score for Canon 4, fifth system. It consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The music features various notes, rests, and accidentals. Dynamic markings include *al ff* (all fortissimo). There are also some handwritten markings above the notes.

al ff

Handwritten musical score for Canon 4, sixth system. It consists of two staves. The upper staff is in treble clef and the lower staff is in bass clef. The music features various notes, rests, and accidentals. There are also some handwritten markings above the notes.

Canonic Offerings
Canon 4 $\bullet = 160$ rit.

Handwritten musical score for Canon 4, first system. The system consists of two staves. The upper staff is a grand staff (treble and bass clefs) with a 12/8 time signature. It contains a triplet of eighth notes marked with a bracket and the number 3, followed by a fermata. The lower staff is a grand staff (treble and bass clefs) with a 12/8 time signature. It contains a complex melodic line with many accidentals and a fermata. The system ends with a double bar line. The tempo marking $\bullet = 160$ rit. is at the top right. The dynamic marking *f* is below the lower staff. The dynamic marking *al ff* is below the lower staff.



Handwritten musical score for Canon 4, second system. The system consists of two staves. The upper staff is a grand staff (treble and bass clefs) with a 6/8 time signature. It contains a complex melodic line with many accidentals and a fermata. The lower staff is a grand staff (treble and bass clefs) with a 6/8 time signature. It contains a complex melodic line with many accidentals and a fermata. The system ends with a double bar line. The tempo marking *al* $\bullet = \bullet = 60$ accel. is below the upper staff. The dynamic marking *f* is below the lower staff.

*al* $\bullet = \bullet = 120$ rit.

Handwritten musical score for Canon 4, third system. The system consists of two staves. The upper staff is a grand staff (treble and bass clefs) with a 6/8 time signature. It contains a complex melodic line with many accidentals and a fermata. The lower staff is a grand staff (treble and bass clefs) with a 6/8 time signature. It contains a complex melodic line with many accidentals and a fermata. The system ends with a double bar line. The tempo marking *al* $\bullet = \bullet = 60$ accel. is below the upper staff.

al ♩ = ♩ = 120 rit.

al ♩ = ♩ = 60 accel.

al ♩ = ♩ = 60 accel.

al ♩ = ♩ = 120 rit.

al ♩ = ♩ = 160 rit.

al ♩ = ♩ = 60 accel.

al ♩ = ♩ = 60 accel.

Canonic Offerings
Canon 4al $\text{♩} = 120$ rit.

decresc.

mf

al mf

3

al $\text{♩} = 120$ rit.

al $\text{♩} = 90$ accel.

mp

mf

pp

al mf

pp

al $\text{♩} = 60$

mp

4

4

al

mp

$\text{♩} = 72$

Canon 5

A expressive, but with only a little vibrato

legato full bow

Violin 1

Violin 2

Viola

Cello

f

Vln. 1

Vln. 2

Vla.

Vlc.

7

Vln. 1

Vln. 2

Vla.

Vlc.

13

*sempre accelerando **

B *accel.* $\text{♩} = \text{♩} = 72$ *accel.* $\text{♩} = \text{♩} = 72$

Vln. 1 *p* *p cresc. poco a poco*

Vln. 2 *p cresc. poco a poco*

Vla. *p*

Vlc. *p*

sempre simile $\text{♩} = \text{♩} = 72$ $\text{♩} = \text{♩} = 72$

26

Vln. 1

Vln. 2

32 $(\text{♩} = 84)$ $\text{♩} = \text{♩} = 72$ *accel.*

Vln. 1

Vln. 2

Vla. *p cresc. poco a poco*

* Click track is a stereo file. Violins 1 and 2 listen to the right channel; Viola and Cello listen to the left channel.

Canonic Offerings
Canon 5

23

37

Vln. 1

Vln. 2

Vla.

Vlc.

$\text{♩} = \text{♩} = 72$

accel.

$\text{♩} = \text{♩} = 72$

sempre simile

p cresc. poco a poco

40

Vln. 1

Vln. 2

Vla.

Vlc.

$\text{♩} = \text{♩} = 72$

$\text{♩} = \text{♩} = 72$

Canonic Offerings
Canon 5

43

Vln. 1

Vln. 2

Vla.

Vlc.

$\text{♩} = \text{♩} = 72$

46

Vln. 1

Vln. 2

Vla.

Vlc.

$\text{♩} = \text{♩} = 72$

$\text{♩} = \text{♩} = 72$

alff

Detailed description: This is a musical score for Canon 5, measures 43 through 50. The score is written for four staves: Violin 1 (Vln. 1), Violin 2 (Vln. 2), Viola (Vla.), and Violoncello (Vlc.). The key signature is one sharp (F#) and the time signature is 3/4. Above the first system, a tempo marking indicates a quarter note equals a half note, with a metronome setting of 72. Measure 43 begins with a first violin part marked with a fermata. The second violin part has a half note followed by a quarter note. The viola and cello parts have half notes. In measure 46, the first violin part has a half note followed by a quarter note. The second violin part has a half note followed by a quarter note. The viola and cello parts have half notes. In measure 49, the second violin part has a half note followed by a quarter note. The first violin part has a half note followed by a quarter note. The viola and cello parts have half notes. In measure 50, the second violin part has a half note followed by a quarter note. The first violin part has a half note followed by a quarter note. The viola and cello parts have half notes. The score ends with a double bar line and a fermata.

49

Vln. 1

Vln. 2

Vla.

Vlc.

pp

$\text{♩} = \text{♩} = 72$

51

Vln. 1

Vln. 2

Vla.

Vlc.

alff

pp

$\text{♩} = \text{♩} = 72$

$\text{♩} = 72$

Detailed description: This is a musical score for Canon 5, measures 49-54. The score is written for four staves: Violin 1 (Vln. 1), Violin 2 (Vln. 2), Viola (Vla.), and Violoncello (Vlc.). The key signature is two sharps (F# and C#), and the time signature is 3/4. The tempo is marked as quarter note = 72. The score is divided into two systems. The first system contains measures 49 and 50. Vln. 1 plays a melodic line starting on G4, moving up stepwise. Vln. 2 plays a sustained chord of G4, B4, and D5. Vla. plays a rhythmic pattern of eighth notes. Vlc. plays a bass line with half notes. The second system contains measures 51 and 52. Vln. 1 continues its melodic line. Vln. 2 plays a sustained chord of G4, B4, and D5. Vla. plays a rhythmic pattern of eighth notes. Vlc. plays a bass line with half notes. The score ends with a double bar line and repeat dots.

Canonic Offerings
Canon 5

53

Vln. 1

Vln. 2

Vla.

Vlc.

pp

$\text{♩} = \text{♩} = 72$

alff *pp*