Stuart Lake

a framework for improvising trumpet soloist
with electronics and offstage clarinets

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2009

Concert Notes

Stuart Lake was written during the summer and fall of 2008. The name comes from a lake that I lived nearby for several summers in Fort St. James, British Columbia. The music is a metaphor for this lake, which is vast, clean, cold, and is dotted by many small islands. In the music, the islands are represented by short mobile miniatures, played at the whim of the soloist, while the lake is represented by a continuous backdrop of rich harmonic movement, played by the electronics.

This piece attempts to bring together two different ways of listening to music: "active" and "passive". "Active" and "passive" are not analogous to ambient and non-ambient music, but rather concerns a difference that can be generalized by contrasting the music of most European composers with the American experimental music of composers such as La Monte Young. The former asks the audience to actively concentrate on the sound and pay attention to the musical discourse, whereas La Monte Young asks for the listener to become immersed in the music over long stretches of time with only small changes in the sound. These two modes of listening function as opposites in Stuart Lake. The "lake" (harmonic backdrop) encourages passive listening and the "islands" (mobile miniature) encourage active listening.

While performing *Stuart Lake*, the soloist improvises along guidelines which range from exact musical notation to completely free improvisation. The structure of Stuart Lake is predetermined, but the paricular form of any performance will be newly invented by the soloist.

Technical Setup

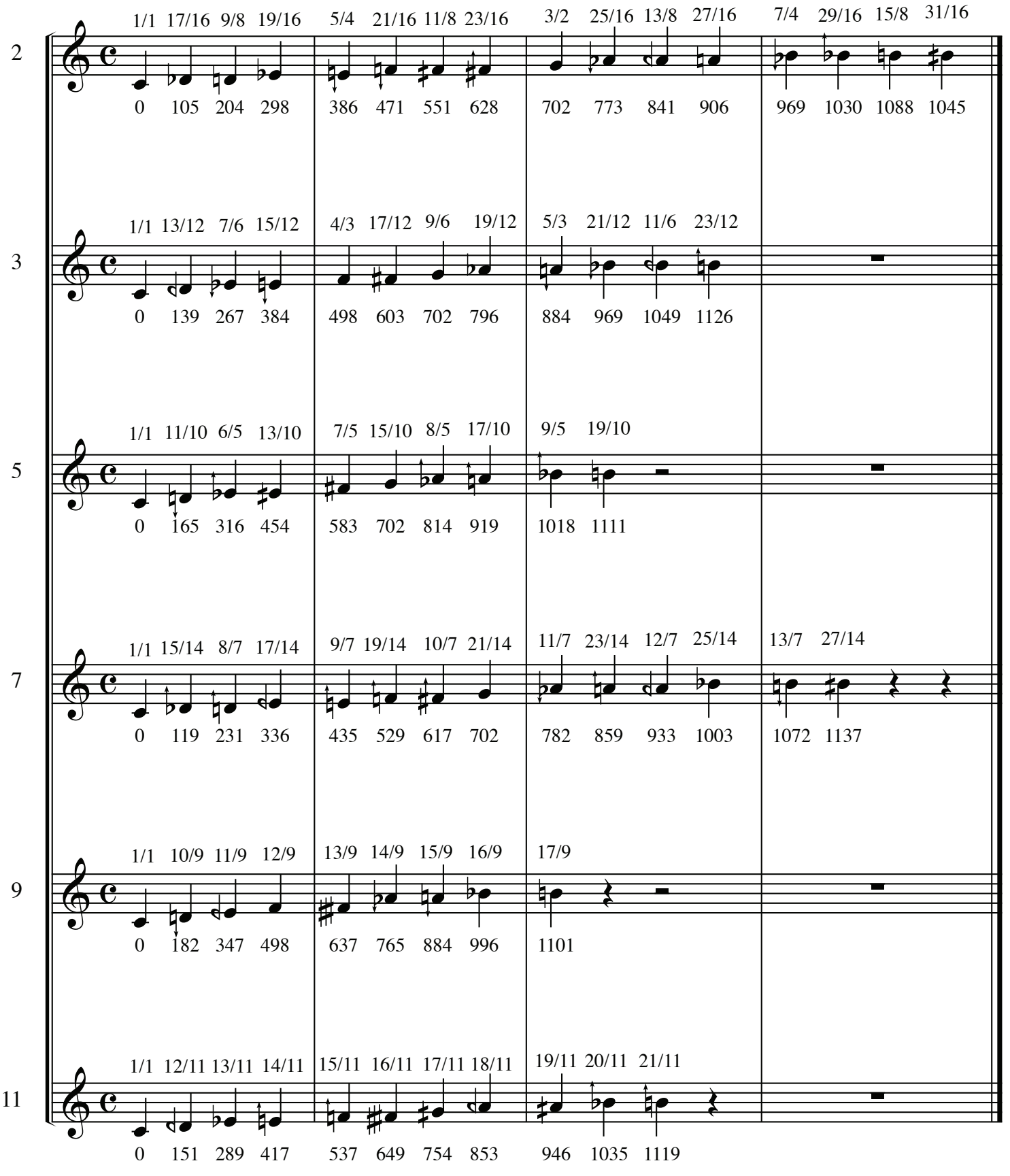
Stuart Lake is optimized for a hexaphonic(6) speaker setup, however, it is possible to realize the work with a stereo or quadraphonic speaker setup, although this will mean a loss in the depth and movement of the sound.

A computer running Max/MSP 4.6 or higher is required for performing this work. Detailed instructions regarding the use of the patch are given with the accompanying software.

Notation

microtonal accidental notation by 8th tones:

Stuart Lake uses extended just intonation, which is notated in the manner shown below, where the harmonic relationship with a fundamental is given. The soloist doesn't need to play music using this notation except in the pitches given in the finale, however this notation is useful for understanding the harmonic movement in the electronics. The numbers below the noteheads are hundredths of a semitone (cents). For example 700 is the equal temperament perfect fifth (seven semitones).



Overview for the Performer(s)

The music of Stuart Lake is a metaphor for a lake with several small islands. The lake manifests itself as a harmonic backdrop in the form of the first thirty-six minutes of a forty-five minute six-channel soundfile. This soundfile defines the duration of the work as a whole. During the first 36 minutes of the soundfile, the trumpet soloist improvises with the soundfile, and performs the "islands." These "islands" are six short miniatures in mobile form; the performer may play the islands in any order and some may be repeated or omitted. When the lake soundfile has reached the 36 minute mark a final seventh island, which ends the composition, is automatically triggered.

The soloist shares control with the composer regarding how the musical narrative unfolds, the overall structure of the piece predesigned, but the soloist gives that structure a form. The technical setup must be designed so that the soloist is able to choose when to play any given island. This can be achieved by a number of footpedals, a computer keyboard, or a system of signals to a technician.

An important thing to keep in mind when choosing when to play "islands" is that one should not be in the middle of an "island" at the thirty-six minute mark, otherwise the beginning of the "finale island" will be missed.

Stuart lake may also be performed omitting the islands completely.

Instrumentation

Stuart Lake is extremely open-ended in instrumentation. Although it is optimized for a trumpet improviser with two or more offstage clarinets or flutes, any instrumentation in which the soloist does not have a temperament (keyboard or fretted instrument) is possible. If the soloist is not a trumpet, then the Bb island will be omitted. A few sample alternatives for instrumentation are:

- 3 trumpet soloists with 2 offstage clarinets and 2 offstage flutes
- alto voice with 3 offstage oboes
- clarinet soloist and trumpet soloist with offstage choir
- viola solo with no offstage instruments

The list could go on indefinitely, and these example are only given to show how interchangeable the orchestration may be.

The Lake

The part of this work that I refer to as the "lake" is a soundfile that functions as a harmonic backdrop for the first thirty-six minutes of the work. The volume of the "lake" should be slightly less than that of the trumpet playing at a quiet dynamic (piano). The exact notes and their durations that comprise the lake are given on pages four to seven of the score.

The harmonic changes have a recursive or self-referential structure, which gradually ascends up a semitone over the course of 36 minutes. The harmonies are in just intonation, which is shown in the harmonic map as fractions as well as a traditionally notated pitch, quantized to the nearest 8th of a tone. The structure of the "lake" is a short chord progression with a tonic pedal tone that modulates up a just major second and then repeats using the new tonal centre with slight variations. The just major second is 4 cents(hundredth of a semitone) sharp of the equal temperament major second, which means that the tonic pedal of the chord progression is constantly edging further and further sharp from equal temperament. Eventually the D that begins the "lake" edges up in pitch far enough to become an E flat. The arrival of this E flat marks the start of the finale (p.12) thirty-sax minutes into the work.

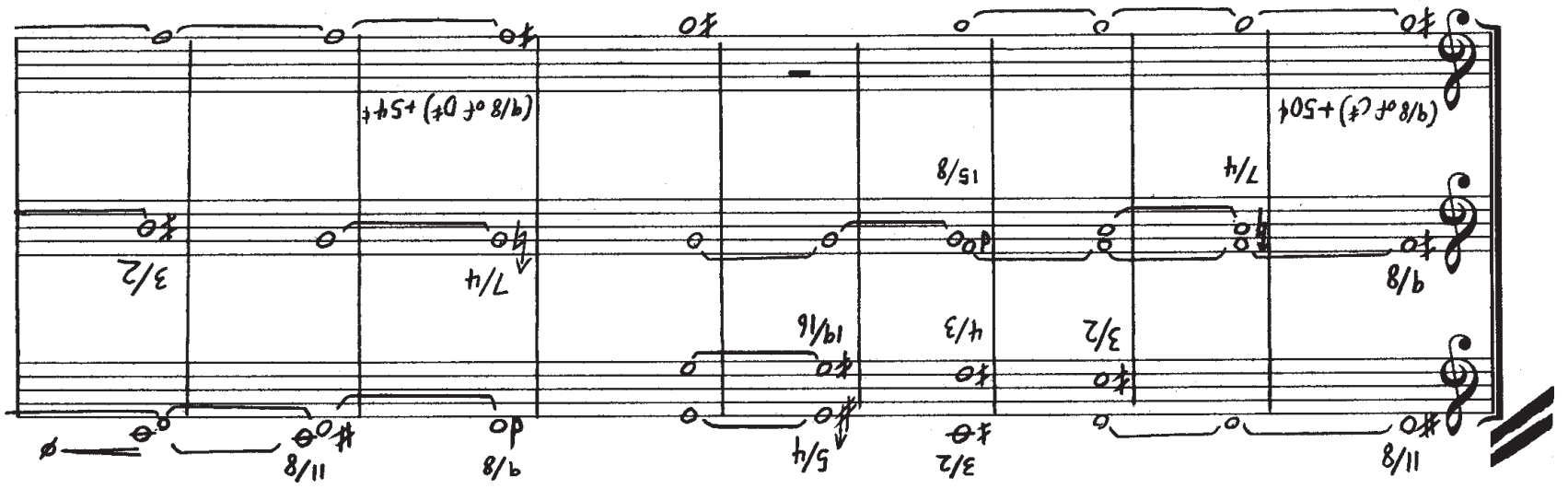
The Islands

The "islands" of *Stuart Lake* are mobile miniatures that are performed during the "lake" as decided by the soloist. The "islands" may also be repeataed. The soloist must have a way to trigger the "islands" in the electronics (with the exception of the "call and response," which requires no trigger at all). This may be done by midi footpedals, a computer keyboard, or a signal to a technician at the computer.

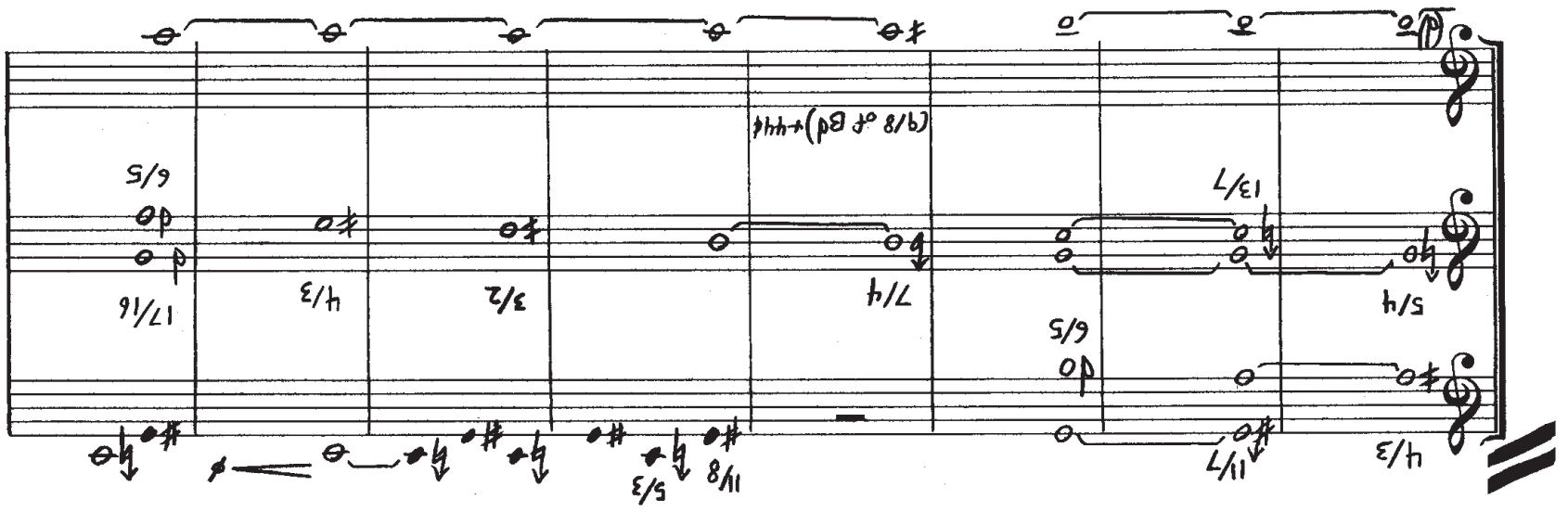
Island	Duration	Instrumentation
Ab island	40"	soloist + electronics (tape)
Delay island	open	soloist + electronics (live)
Call and Response	open	soloist + offstage (required)
Gb island	1'30"	soloist + offstage (optional)
Bb island	50" to 1'10"	soloist + offstage (required
Db island	3'30"	electronics solo
Finale (Eb island)	9'16"	soloist + electronics (tape) + offstage (optional)

harmonic movement of the “lake”

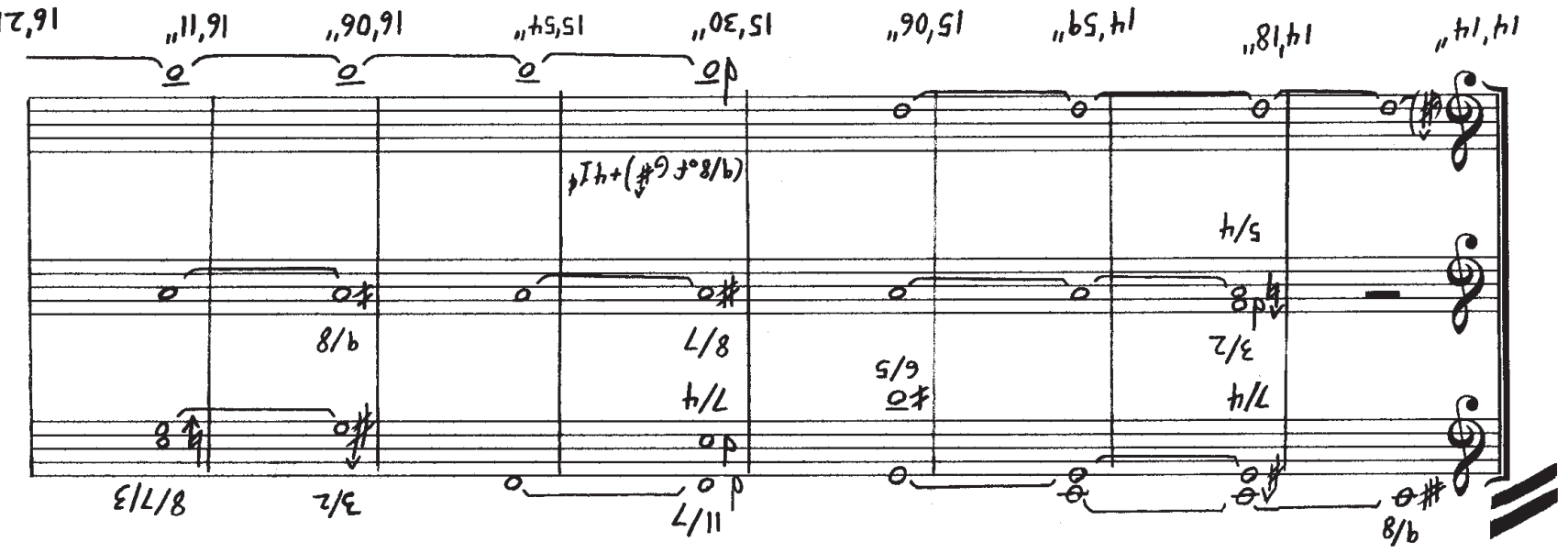
18'10" 18'50" 19'06" 19'30" 19'46" 19'58" 20'12" 20'18" 20'38" 20'48"



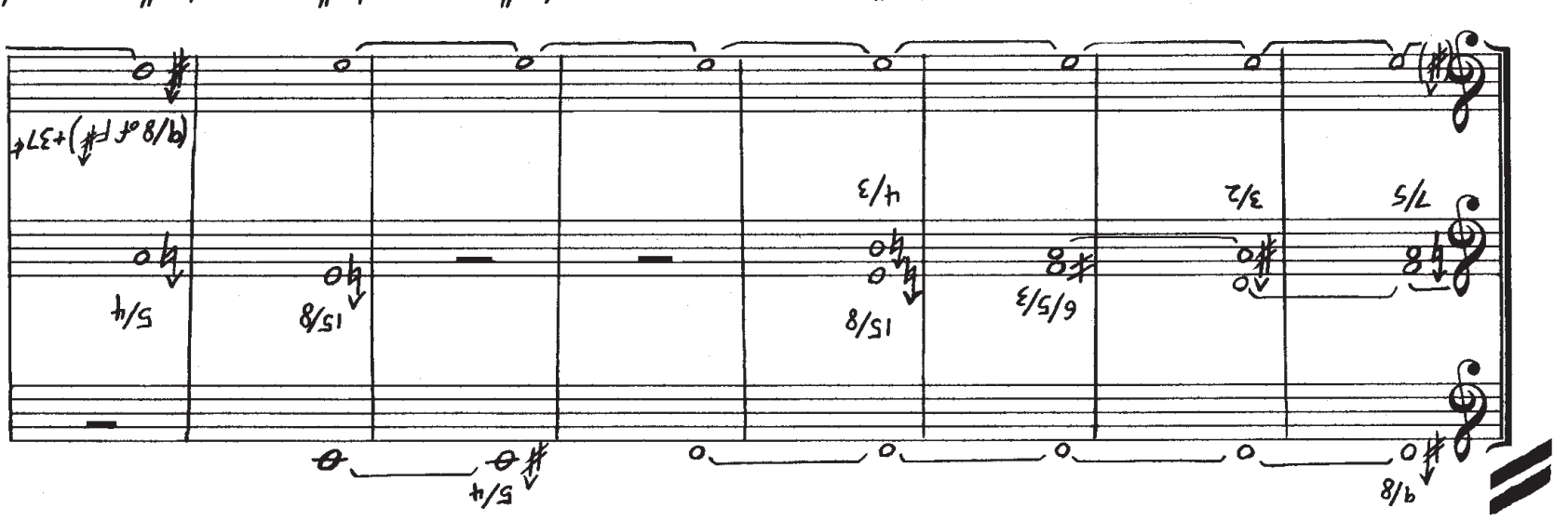
16'21" 16'24" 16'37" 16'56" 17'05" 17'21" 17'38" 17'49" 18'10"



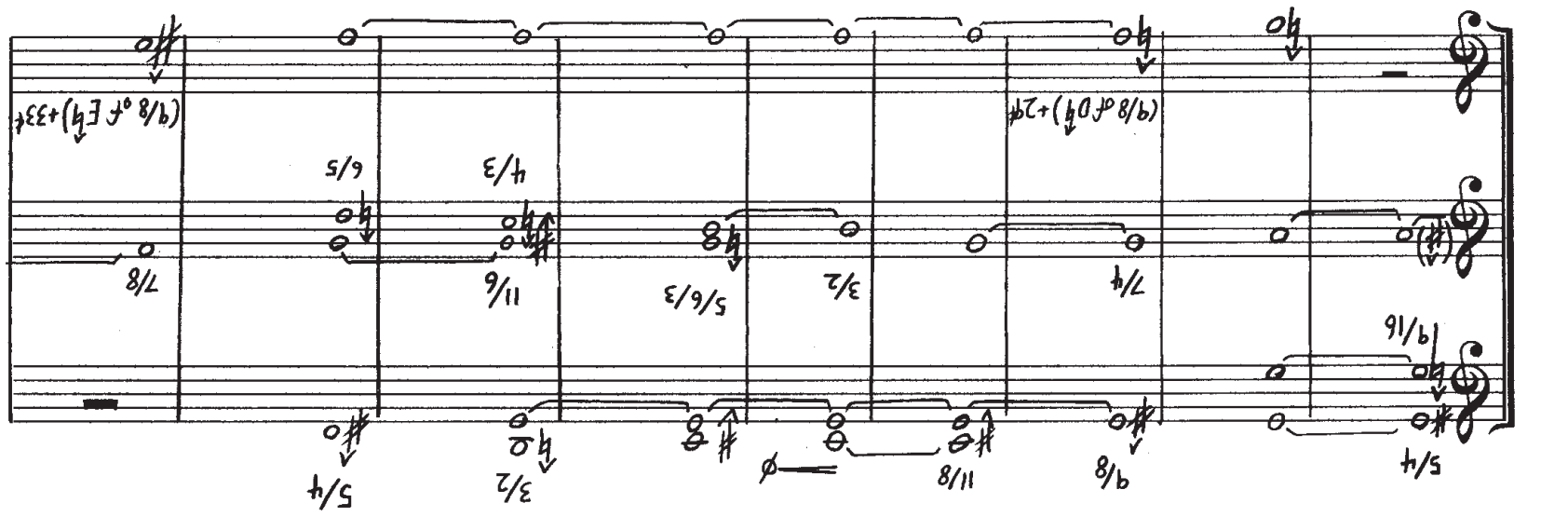
14'14" 14'18" 14'59" 15'06" 15'30" 15'54" 16'06" 16'11" 16'21"



12'55" 13'00" 13'18" 13'26" 13'42" 13'52" 14'01" 14'09" 14'14"



10'44" 10'56" 11'10" 11'16" 11'36" 11'46" 11'58" 12'16" 12'42" 12'55"



11/8 3/2 5/4 9/8

5/6/3 11/6 7/8 6/5/3 15/8

4/3 6/5 7/5 3/2 4/3

(9/8 of E♯)+58¢

20'48" 21'00" 21'18" 21'44" 21'57" 22'02" 22'20" 22'28" 22'44"

5/4 9/8

15/8 5/4 7/4 6/5

3/2 5/4

(9/8 of G♯)+62¢

22'44" 22'54" 23'03" 23'11" 23'16" 23'20" 23'51" 24'08" 24'32"

11/7 3/2 8/7/3 4/3 11/7

7/4 6/5

8/7 9/8 5/4 7/4

13/7

(9/8 of A♯)+66¢ (9/8 of B♯)+70¢

24'32" 24'56" 25'08" 25'13" 25'23" 25'36" 25'39" 25'58" 26'07"

11/8 5/3 11/8 3/2 5/4

3/2 4/3 17/16 9/8 3/2 4/3 19/16

7/4 15/8

(9/8 of C♯)+75¢

26'07 26'23" 26'40" 26'51" 27'00" 27'40" 27'56" 28'20" 28'36" 28'48"

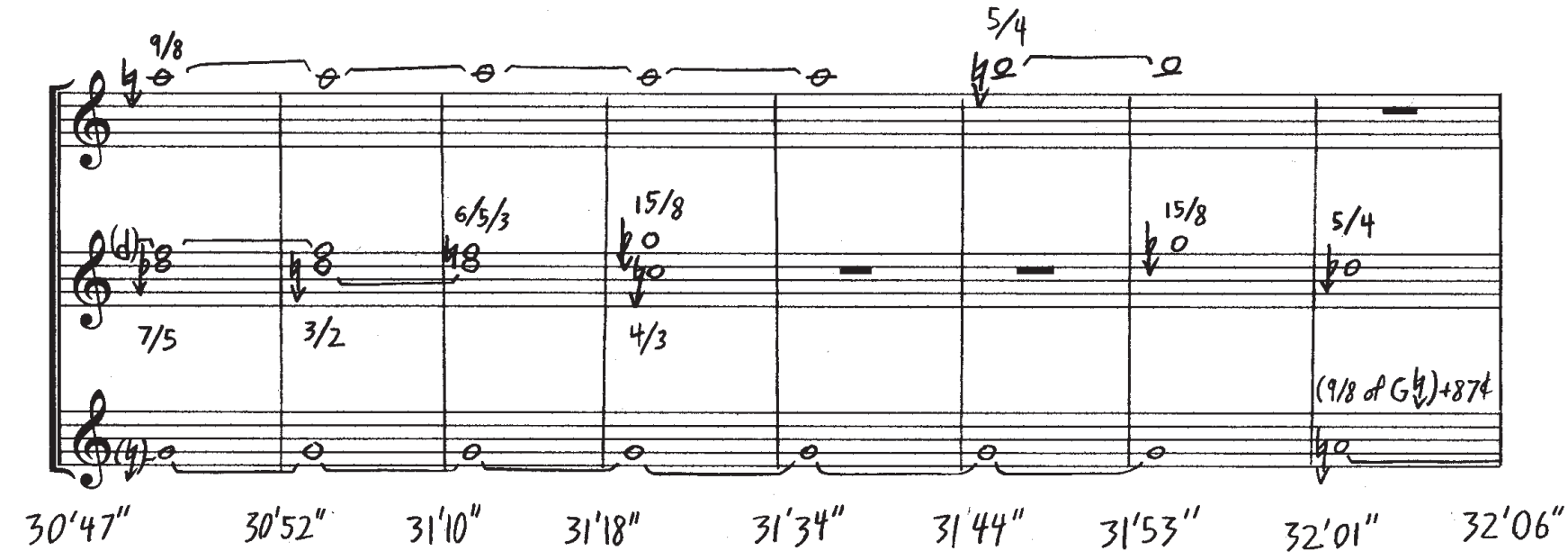
9/8 11/8 11/8 3/2 5/4

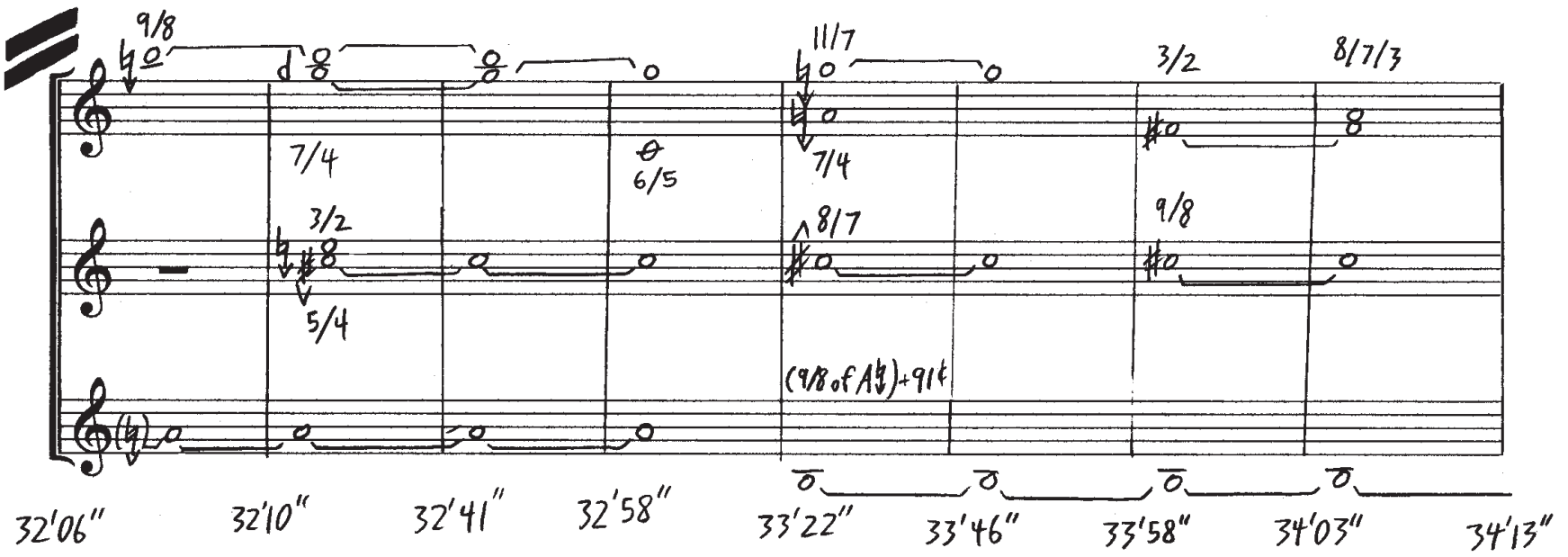
7/4 3/2 5/6/3 11/6 7/8

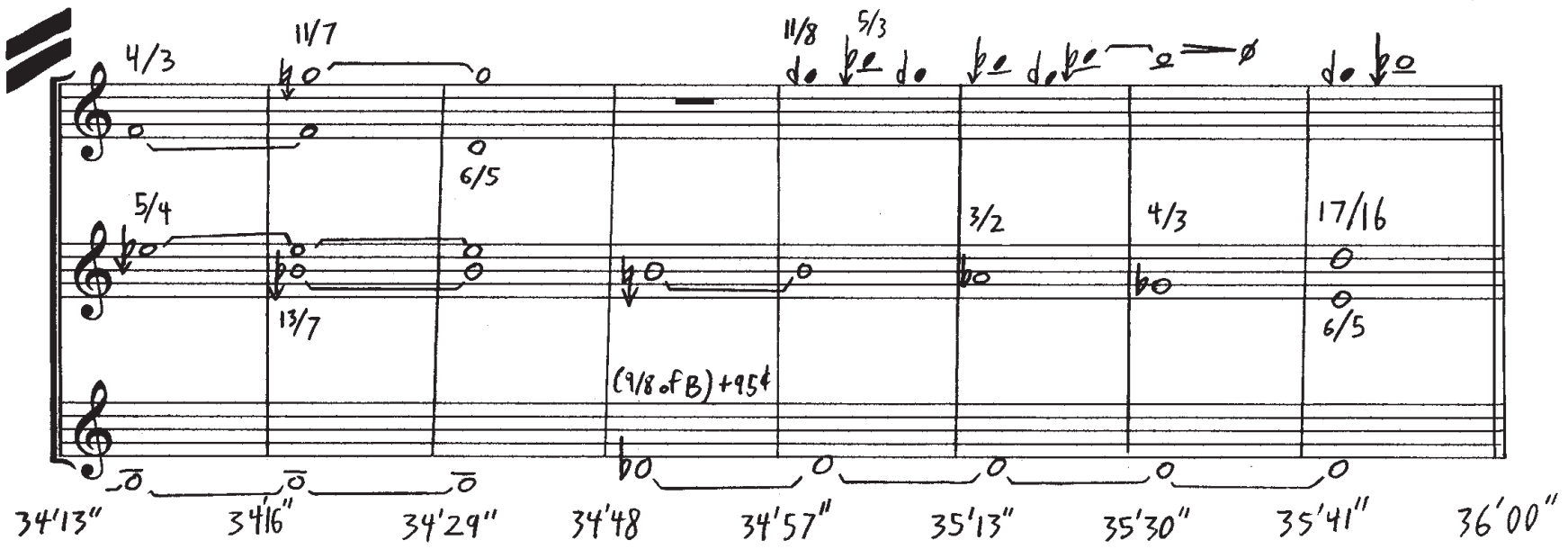
4/3 6/5

(9/8 of D♯)+79¢ (9/8 of F♮)+83¢

28'48" 29'02" 29'08" 29'28" 29'38" 29'50" 30'08" 30'34" 30'47"







to finale island

Ab Island

This island requires the soloist to play any Ab for forty seconds straight. The soloist triggers the start of this island, but need not trigger the ending, since it occurs on it's own from the 40 second set duration. While the soloist plays the Ab, the electronic accompaniment diffuses six sine tones bending around an Ab4 aleatorically, producing different beats as a result of the slight changes in frequencies. When this island is triggered, a "ripples" soundfile will play, followed by the sine tones and then after forty seconds a second "ripples" soundfile is automatically triggered, ending the island. The Ab played by the soloist should begin during the first "ripples" soundfile and end during the second "ripples" soundfile. This Ab should be played strongly and firmly, without vibrato or any wavering in pitch; the way in which the sine tones interact with this solid Ab in terms of beating and combination tones is the focus of this island.

Delay Island

The soloist triggers the start and finish of the "island", and so the duration is decided upon in the moment of performance by the soloist. This island is simply a set of delays that process the live sound of the soloist. Playing anything in this island is possible, and the soloist is encouraged to explore their own whims, using the suggested structure given below as a starting point.

A suggested structure for this island:
40" - ascending runs spanning the entire range of the instrument
2' - Long held notes (F, F#, G, A)
1'20" - Unpitched percussive noises
20" - Descending runs spanning the entire range of the instrument

Calls and Responses Island

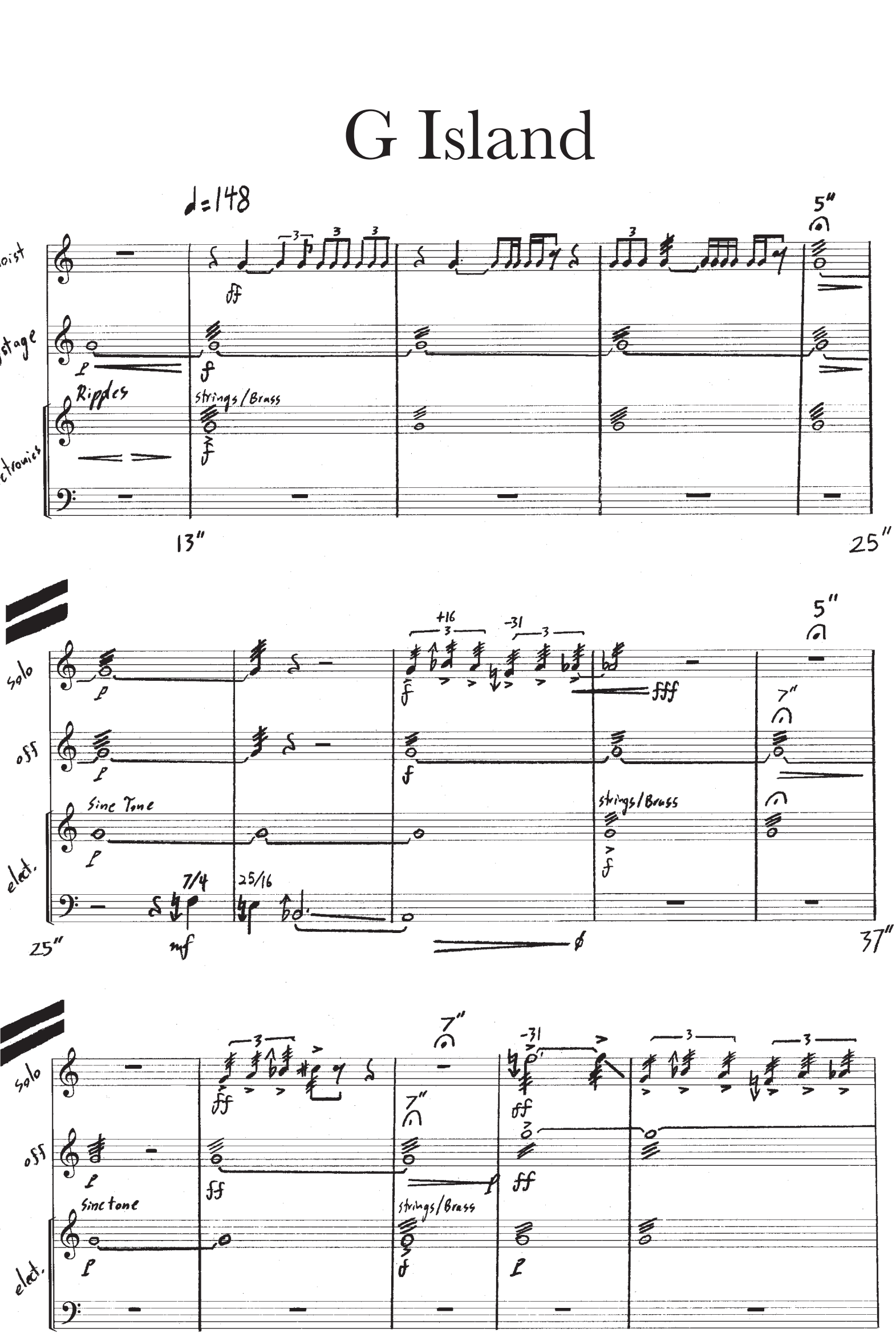
–dialogue with offstage instrument(s)–

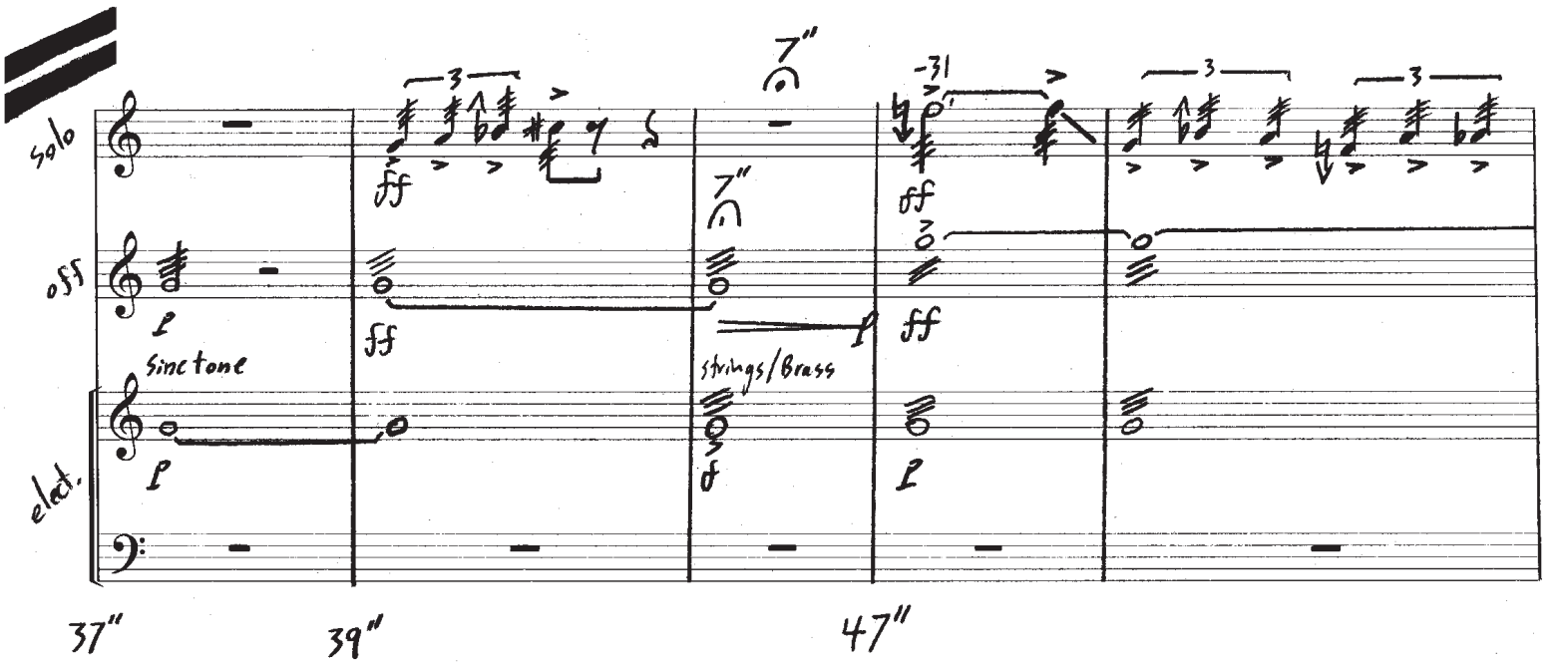
In this island, the offstage instrument(s) make improvised "calls" to the soloist who then improvises responses. Because the offstage instrument(s) make the "calls," the soloist must in some way signal the offstage instruments to begin. The "lake" (harmonic background) continues to play through this island, and there is no live processing, so this island requires no triggering for the electronics.

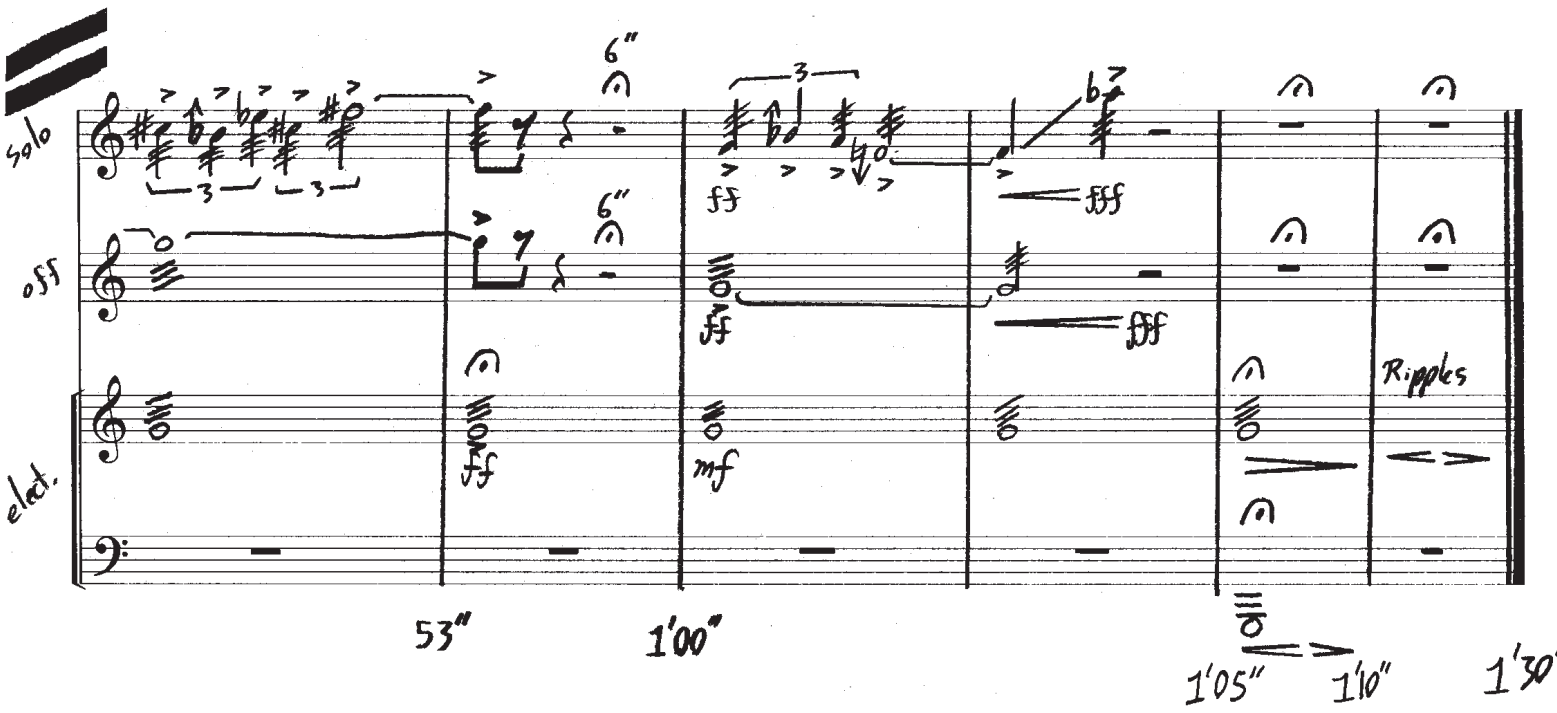
This island may be anywhere from 20 seconds to 10 minutes in duration.

G Island

♩=148
Soloist
offstage
Electronics
Ripples
Strings/Brass
5"
13"
25"


Solo
off
elect.
Sine Tone
+16
-31
7/4
25/16
mf
fff
strings/Brass
5"
7"
25"
37"


Solo
off
elect.
Sine tone
-31
strings/Brass
7"
37"
39"
47"


Solo
off
elect.
6"
fff
Ripples
53"
1'00"
1'05"
1'10"
1'30"

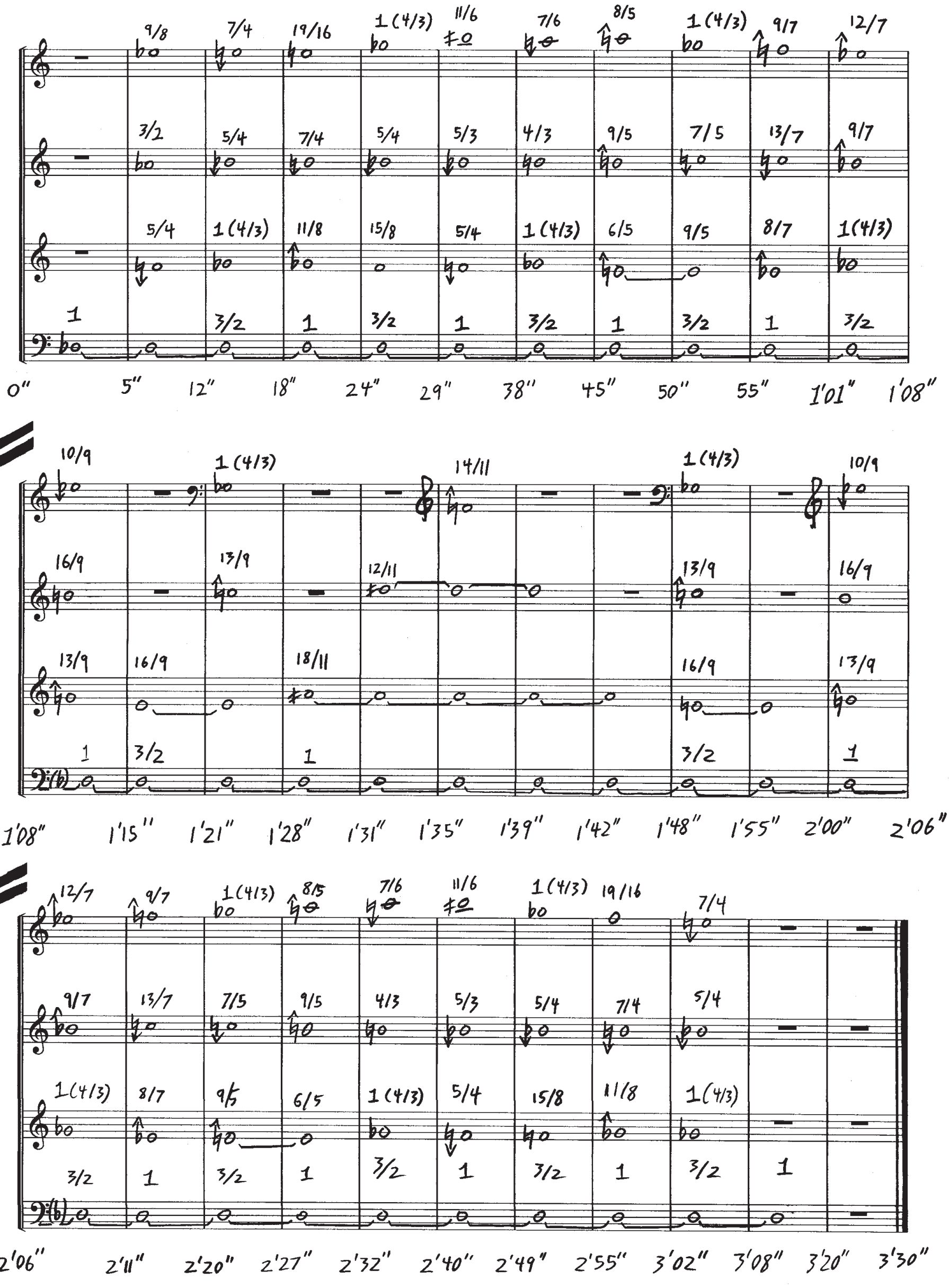
Bb Island

This island is the only through composed miniature, and requires a trumpet soloists with offstage instruments that can play in the appropriate rage (Bb4 to F6). If this instrumentation is not being used then this island should either be omitted or rewritten.

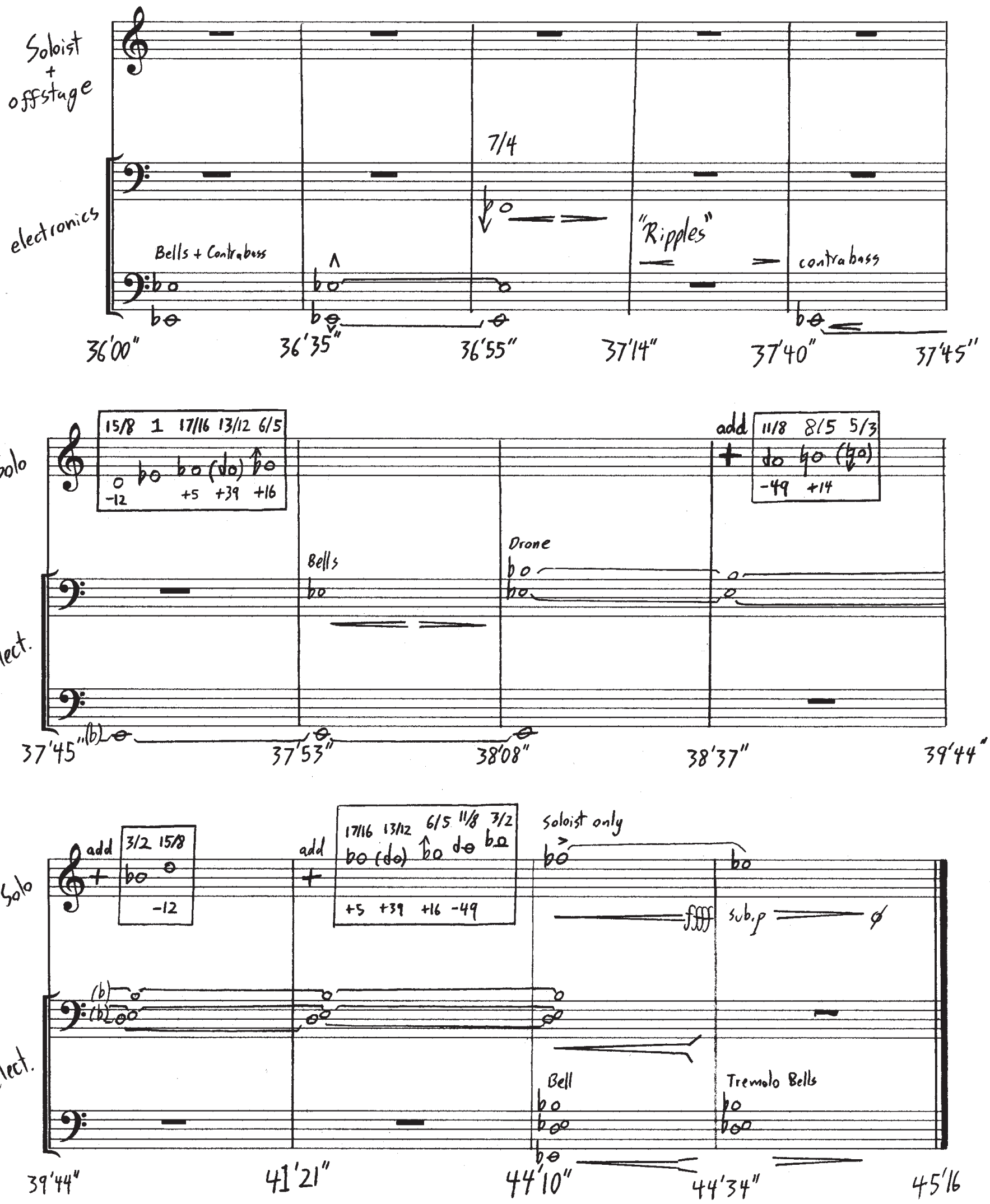
Db Island

–electronics solo–

This island is a 3’30” solo electroniccs piece that may be used to give the soloist a break from playing. The soloist is free to improvise with the tape peice, however, it was designed as a standalone miniature to give the soloist a break from playing.



Finale

–Eb Island–

This island is automatically triggered at the thirty-six minute mark of the piece. The soloist and offstage instruments do not begin playing until 37'45". The sloist and offstage instruments must play only the pitches given in the boxes. The offstage instruments should play long (full breath) and steady tones as well as multiphonics, if possible. The soloist is free to play in any way using the given pitches.