Chain Reactions/Five Events

for String Quartet and Live Electronics

Chain Reactions/Five Events was commissioned by MIVOS Quartet and LUCERNE FESTIVAL for the LUCERNE FESTIVAL ACADEMY 2013, Artistic Director Pierre Boulez.

The work will be first performed at the LUCERNE FESTIVAL Lounge at Bourbaki on Friday, 23 August 2013 by the MIVOS Quartet within the scope of LUCERNE FESTIVAL, SOMMER 2013.

Sam Pluta

Chain Reactions - Instructions

Chain Reactions is a work for String Quartet and live electronics. The live electronics are to be performed either by the composer, Sam Pluta, or someone interested in performing with their own software with a string quartet. In such a case, the electronics performer should consult a recording of the work and make musical decisions as far as performative approach is concerned.

For each Chain Reaction:

1) Each member of the ensemble can choose to be in a state of Triggering or Reacting and can switch states at any time (often many times per Chain Reaction box).
2) When triggering, choose an opportune time to make the trigger sound.
3) When reacting, respond as quickly as possible to any sound by creating a new sound from the Reaction box.
4) Silence is always an option.

Key:

overpressure on the opposite side of the bridge

noise sound created by stopping the strings with the left hand and running the bow over the strings down or up and sideways

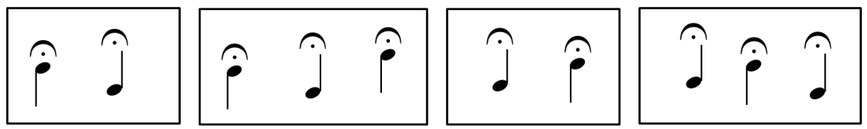
crunch the bow against the strings

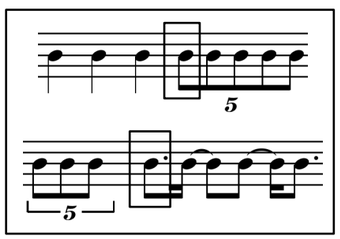
z overpressure

glissando col legno battuto

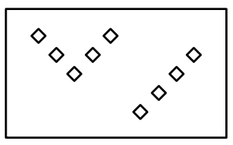
as a reaction a player can play a sustained melody of two or three notes in one of the following melodic shapes:

melody





tutti chords in rhythmic unison
pitch content for each chord is adlib, but stays the same from attack to attack, changing only on the boxed notes



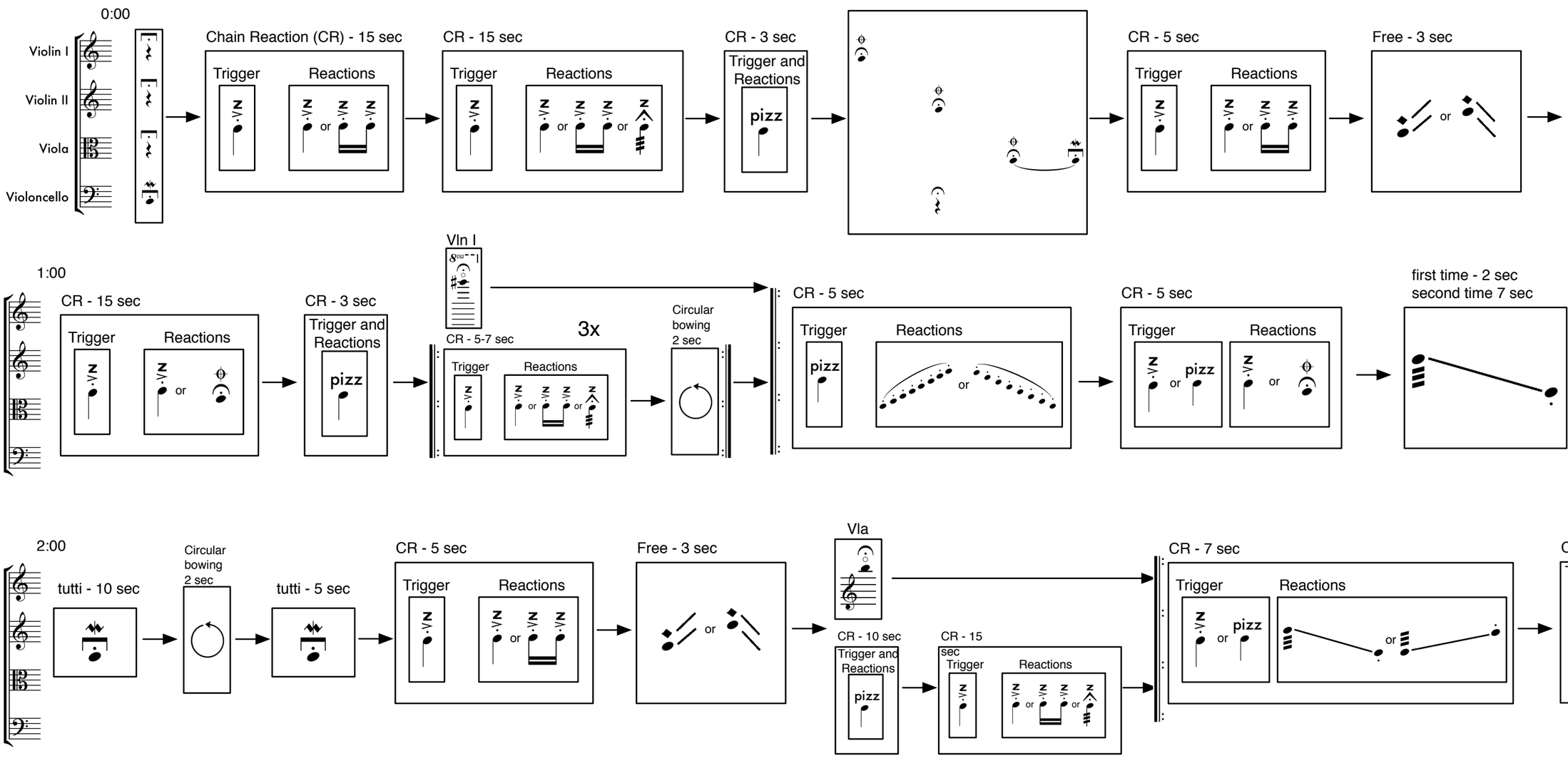
fast fingering of harmonics in first position on any string combined with ricochet bowing
only one player should be playing at any time, but the gesture should quickly pass back and forth between the players, with 5-11 notes per player per turn

Part I - Chain Reactions

Sam Pluta

I - Chain Reactions

Pianississimo at all times. Sections where the chain reactions apply are labeled as such. In these sections, use the following algorithm to make decisions:



© Copyright 2013 Sam Pluta - Signal Path Publishing

3:30

Violin I
Violin II
Viola
Violoncello

CR - 30 sec

Trigger
Reactions
or
pizz
or

CR - 3 sec
Trigger and Reactions
pizz

Free - 3 sec
or

Circular bowing 2 sec

tutti - 5 sec

CR - 7 sec
Trigger and Reactions

3 sec

attacca

II - Crossfade

4:30

Violin I
Violin II
Viola
Violoncello

Free - 3 sec
or

Circular bowing 2 sec

CR - 3 sec
Trigger and Reactions

CR - 3 sec
Trigger and Reactions
pizz

CR - 15 sec
Trigger
Reactions
or

CR - 30 sec
Trigger
Reactions
o r
o r

Crescendo and increase bow speed over the next minute.
Start with slow bowing and increase to about 2 bows per second.

ppp
Pedal

3x - 2-7 sec each

tutti (no cello)

CR
Trigger and Reactions

CR - 7 sec
Trigger
Reactions

Improvise timbrelly on the open string, adding sul pont, overpressure, and sul tasto bowing. Also begin to touch random harmonics on the string for up to two seconds.

CR - 30 sec

6:00

Violin I
Violin II
Viola
Violoncello

Triggers
pizz
o r

Reactions
o r
o r
on these pitches

Decrease bow speed to slow bows over 30 sec.
Increase bow pressure until reaching a point of overpressure

f

Vln I
Increase bow pressure until reaching a point of overpressure

Increase bow pressure until reaching a point of overpressure

overpressure

attacca

III - Chain Reactions, part 3

Forte and aggressive at all times.

CR - 5 sec
Trigger
Reactions
or

5 sec

Violin I
Violin II
Viola
Violoncello

CR - 10 sec
Trigger
Reactions
or
melody

CR - 5 sec
Trigger
Reactions
or
pizz
melody

CR - 3 sec
Trigger
Reactions
or
melody

CR - 5 sec
Trigger
Reactions
or
pizz

3 sec

♩=90
change notes

7:40

CR - 20 sec
Trigger
Reactions
or
pizz
melody

5 sec - Vln I and II

CR - 3 sec
Trigger
Reactions
or
melody

3 sec

5 sec - Vla and Vc

♩=60

CR - 3 sec
Trigger
Reactions
or

8:40

CR - 10 sec
Trigger
Reactions
or
pizz
melody

10 sec

5 sec - entire ensemble

CR - 5 sec
Trigger
Reactions
or
melody

♩=90
attacca
to Part II - Five Events

Part II - Five Events (hold - switch - fragment - wall - flutter)

3x

♩ = 120

A

Violin I

Violin II

Viola

Violoncello

ff

8va

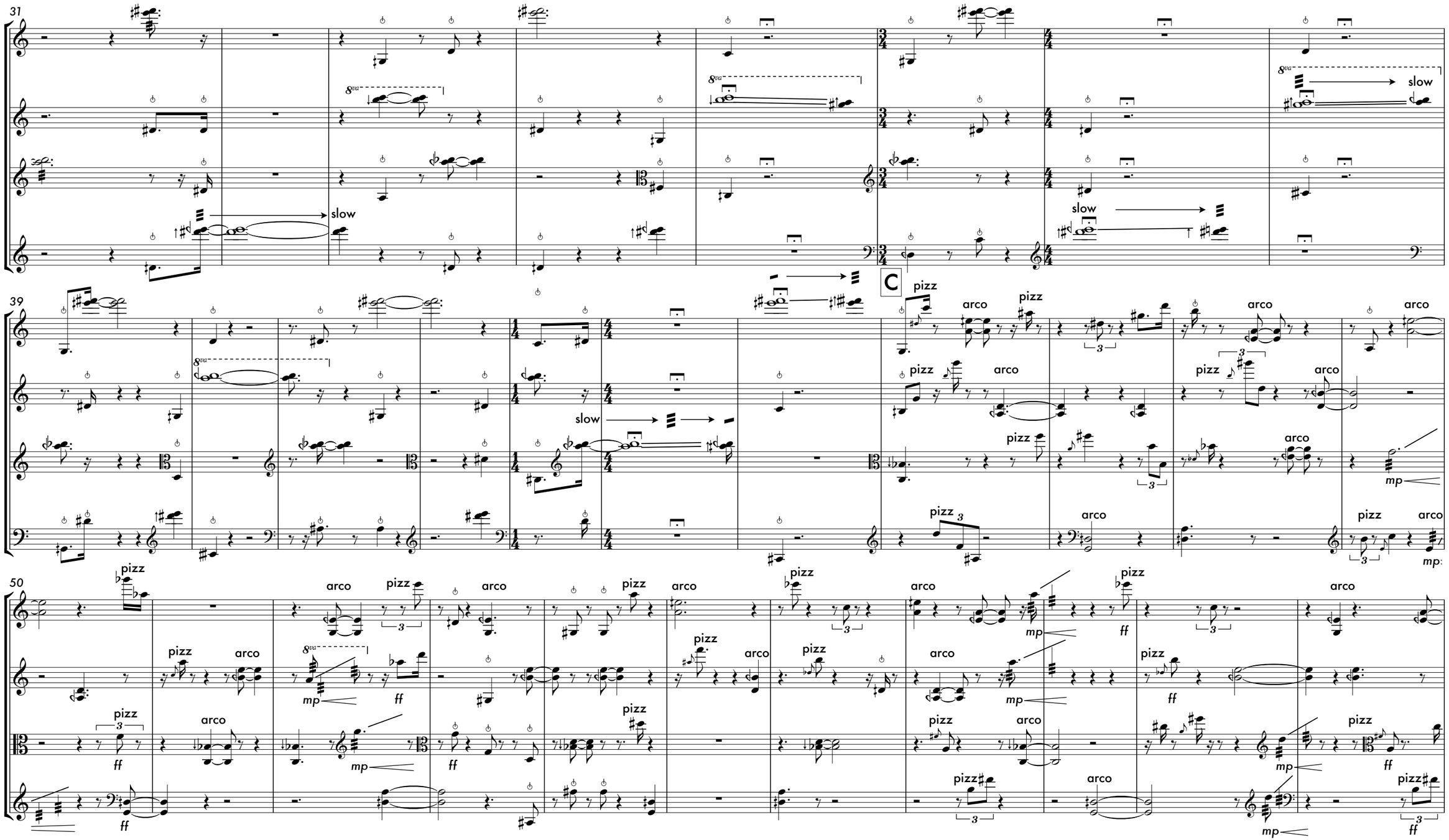
15

23

B

slow

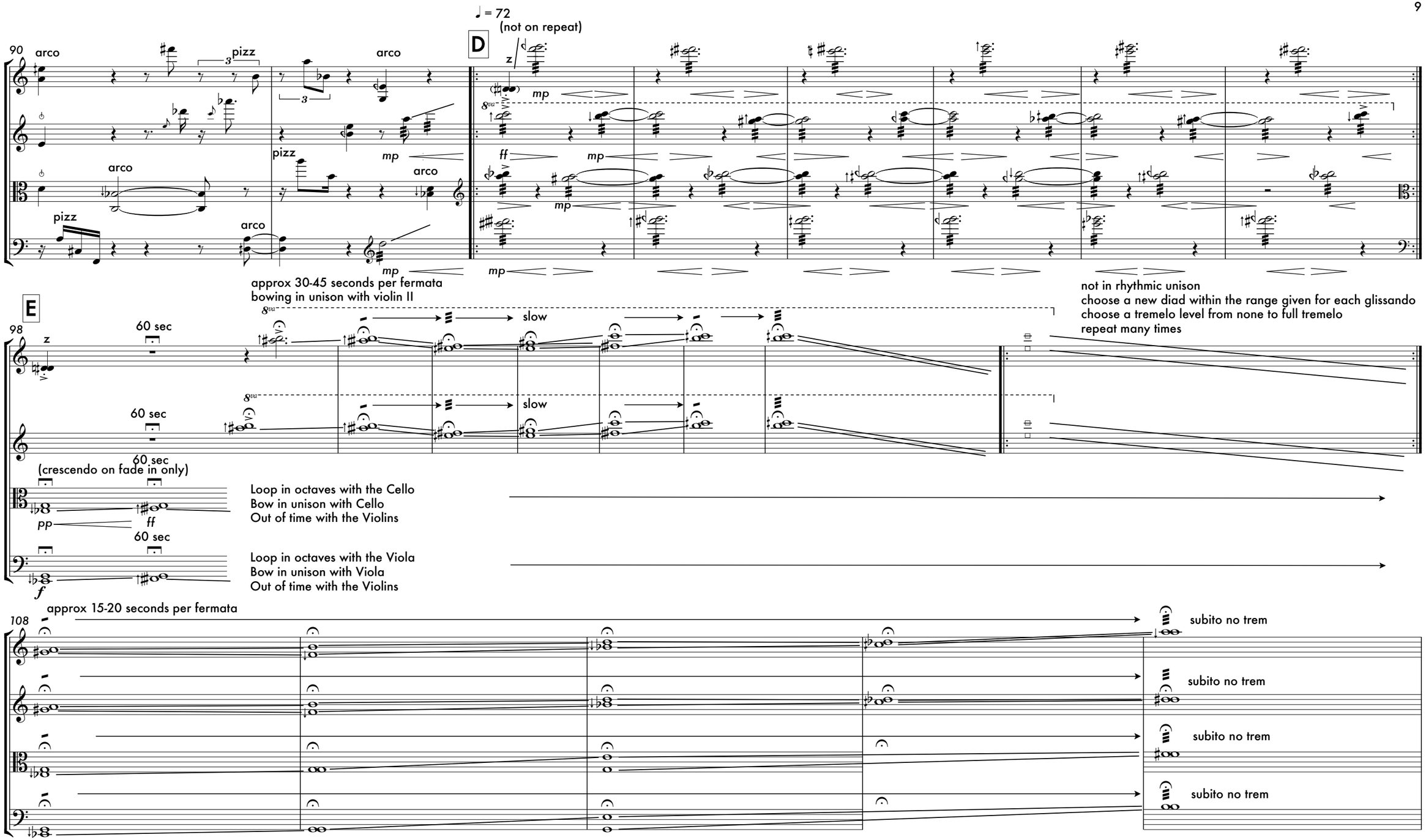
(enharm)


31
slow
8va
slow
39
C
pizz
arco
50
mp
ff

61

71

82


♩ = 72
(not on repeat)
D
90
arco
pizz
arco
pizz
arco
pizz
arco
mp
ff
mp
mp
mp
mp
E
98
z
60 sec
60 sec
60 sec
60 sec
(crescendo on fade in only)
pp
ff
f
approx 30-45 seconds per fermata
bowing in unison with violin II
slow
slow
not in rhythmic unison
choose a new diad within the range given for each glissando
choose a tremelo level from none to full tremelo
repeat many times
Loop in octaves with the Cello
Bow in unison with Cello
Out of time with the Violins
Loop in octaves with the Viola
Bow in unison with Viola
Out of time with the Violins
108
approx 15-20 seconds per fermata
subito no trem
subito no trem
subito no trem
subito no trem

F * (any microtonal diad within this range)

As fast as possible

after each harmonic solo, slightly detune one or two strings on the instrument

113

117

121

125

129

8va

133

137

8va

141

145

8va

149

153

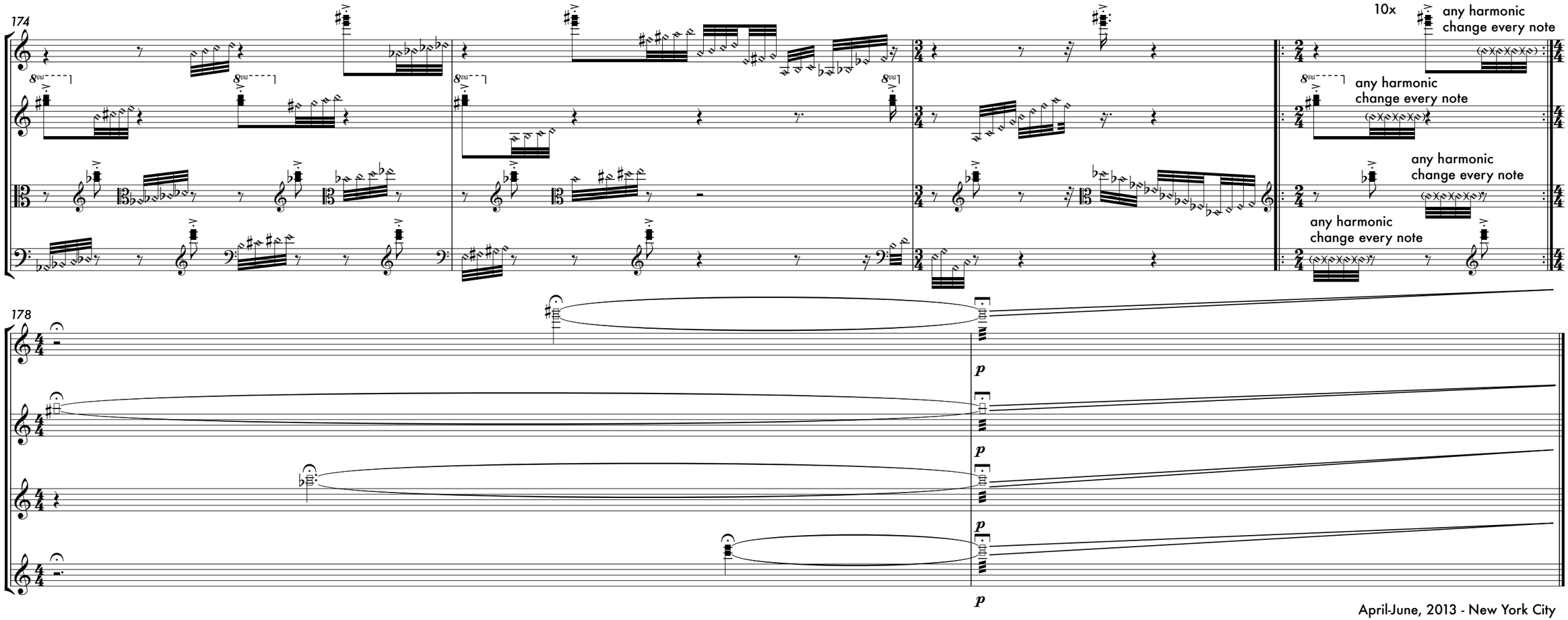
157

161

G

165

170



April-June, 2013 - New York City