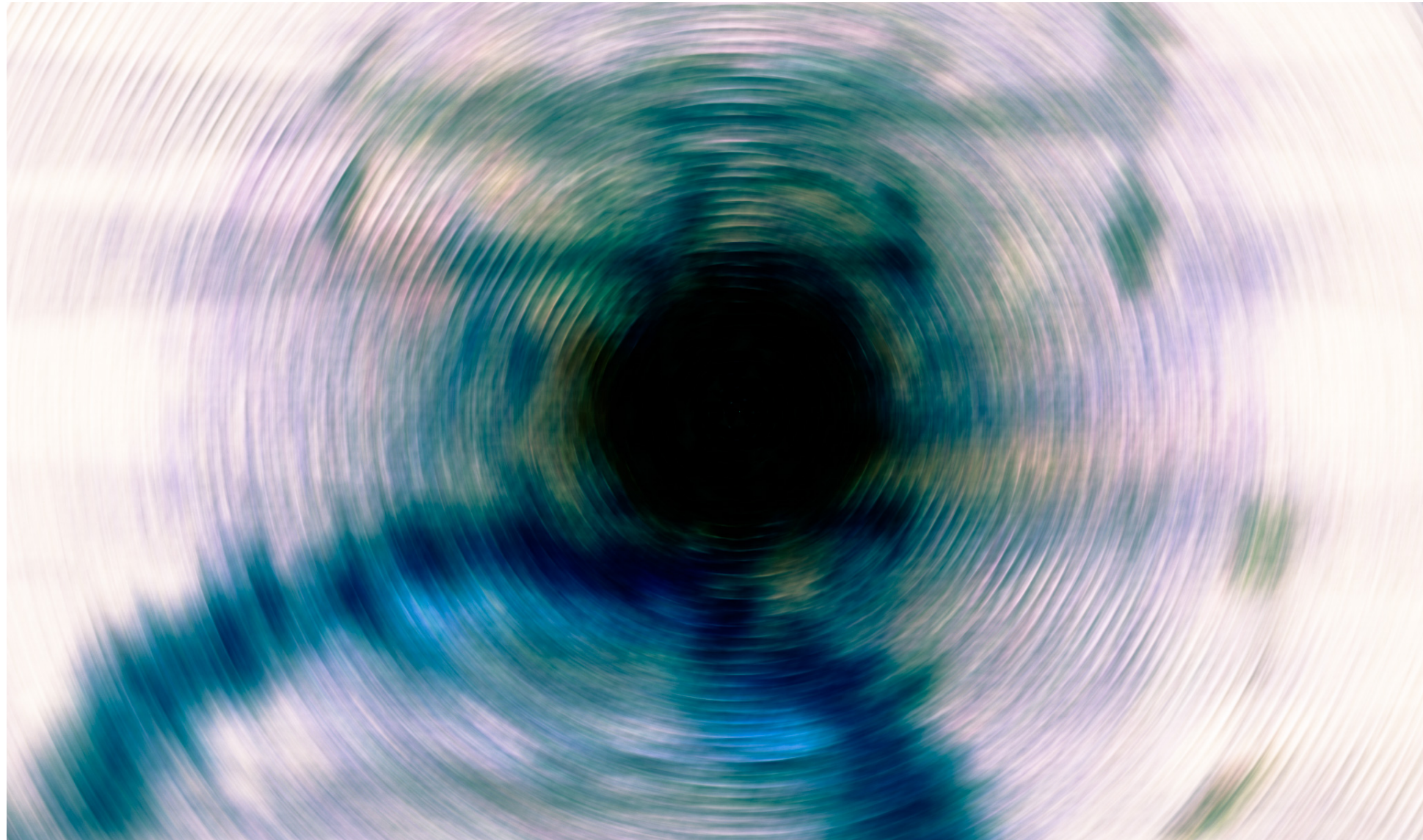


FEEDBACK SHIFT II (2014/15)

for amplified cello and live processing



ANDREW A. WATTS

Program Note

Feedback Shift II was composed in the fall of 2014 for cellist Séverine Ballon's January 2015 residency at Stanford University. For *Feedback Shift II* I returned to a process of extreme restraint. The work consists of eight sections each “shifting” through distinct sets of pitches. The effect can be thought of as having the live instrument passing through isolated filters or rules. The role of the cello, similar to that in *Feedback Shift I*, is to challenge one's timbral perception and contextual memory, begging the question during each episode: What is the relationship between these two seemingly disparate elements (soloist vs. environment)? The live processing of the cello tone serves to bridge the human-electronic divide, highlighting and extending gestural extremes of the instrument via various noise envelopes.

The cover page image was designed by Andrew A. Watts.

Instrumentation

Cello

- Contact microphone (or directional mic on a stand) at bridge
- Instrument amplifier
- Effects processor
- PA system (stereo: right and left speakers)
- Playback device
- Mixing board for PA system (optional but recommended)

A wooden clothing pin will be utilized at various points in the piece to selectively mute the G string on the cello. This will be provided for the soloist.

The soloist should NOT be tasked with controlling the electronics part during the performance. A separate, dedicated individual is required to actively control the distortion/gain levels for the cello sounds, as well as start the playback of the pre-recorded sounds at the beginning.

The playback is a single audio file and does not need to sync up perfectly with the live performance. Rather, there is some extra time added at the end of the tape part in case the tempo is taken slower than indicated. If this is the case, and the audio duration matches the soloist's performance no other action is necessary. Otherwise, please gradually fade out the playback if it is still sounding when the soloist has finished.

The live processing instructions are notated on another printed part and involves continuously monitoring the distortion/gain levels. For the premier performance a DigiTech RP100 was used at preset #14 with amp Hr and calibrated with the volume knob at 50. Other digital effects pedals or distortion stomp boxes may be substituted, as long as there is a sustained lead guitar tone and independent volume and tone knobs.

(recommended setup)

PA system
(left speaker)



PA system
(right speaker)



Soloist with
microphone



Instrument amplifier
with effects processor



[stage]

PA system
input/output
mixing board



Playback
device

required cables not shown in diagram

Performance Notes

Duration (approx.): 10 minutes

Accidentals apply only in the measure and register in which they appear.

Microtonal accidentals (in diagram from left to right):
 $\frac{3}{4}$ tone flat, semi tone flat, $\frac{1}{4}$ tone flat, natural,
 $\frac{1}{4}$ tone sharp, semi tone sharp, $\frac{3}{4}$ tone sharp.

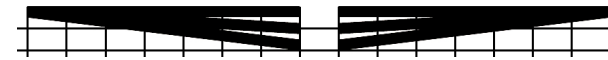


Additional microtonal pitch alterations are notated with small arrows in front of the note head and indicate very slight changes to the written pitch.

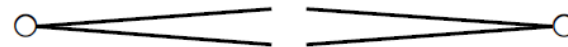


Grace notes always occur before the beat or note they are going to.

Feathered beaming- rhythmic accelerando and ritardando (notated below).



Diminuendo al niente / Crescendo da niente



Change gradually from one sound or one way of playing (etc.) to another.

Stems connected to *glissandi* lines are used merely as guides to help indicate the meter (i.e. where the beat is in relation to the slide). Please do not accent these. Rather, re-articulate freely and staggered according to the demands of the phrase.

X *Scratch tone* (scr.)

... *Ricochet bowing* (ric.)



Snap or Bartok pizzicato



col legno *battuto*



col legno *tratto*

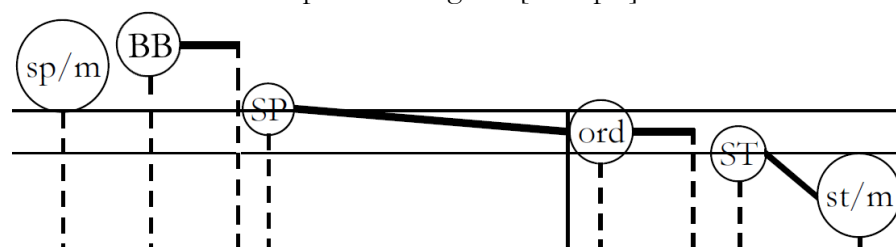


Circular bowing (slow)



(fast/aggressive)

Bow position diagram [example]



BB – “behind bridge”/often used with scratch tone.

sp/m– “maximum sul ponticello” / as close to the bridge as possible but still pitched.

SP – descending degree of distance from the bridge.

ord – halfway between the bridge and the fingerboard.

ST – descending degree of distance from the bridge.

st/m – “maximum sul tasto” / substantially over the fingerboard.

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written for Séverine Ballon

FEEDBACK SHIFT II

Andrew A. Watts (2014/2015)

4/8 ♩ = 80

Amplified Violoncello

sul A
rearticulate when needed, as imperceptibly as possible

f

Gain Levels

100 → 50 → 100 → 50

BB sp/m BB sp/m

gliss.

5 4/8

Vc.

5:4 3

pp

ord non vib.

pppp

ric.

7:4 *f* sub *pp* *f*

Gain Levels

100 → 10 → 0 → 50 → 0 → 50

BB sp/m ord sp/m ord sp/m

2

9

Vc.

mf

norm.

scratch tone

f

sp/m

5

9:8

3:2

mf

Gain Levels

25

100

50

25

==

14

Vc.

ord

gliss.

scratch tone

9:8

f

BB

sp/m

5

9:8

mf

2

BB

4

sp/m

Gain Levels

10

100

50

100

50

19

Vc.

ord

BB

sp/m

BB

ST

SP

pp

mp

Gain Levels

0 25 10 25 0 25

25

Vc.

ord

sp/m

scr.

ord

norm.

scr.

f

mf

ff

sub p

ff

3:2

3

9:8

9:8

Gain Levels

0 50 0 50 0

4

29

7/8

8/8

4/8

Vc.

ord.

norm.

st/m

pizz.

arco

col legno battuto w/L.H. pull-off

5:4

pizz.

mp

f

pp

f

Gain Levels

=

32

4/8

Vc.

arco, norm.

9:8

3

5

6

6

6:5

(mf)

ppp

mf

ppp

Gain Levels

25

0



The image shows a musical score for Violoncello (Vc.) and a corresponding Gain Levels graph. The Vc. part is written in treble and bass clefs. The first measure (39) is marked *sim.* and contains a triplet of eighth notes (arco, ric.), a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), and a half note (pizz. - arco). The second measure is marked *pp*. The third measure (40) is marked *sim.* and contains a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), and a half note (pizz. - arco). The fourth measure is marked *sub p*. The fifth measure is marked *f* and contains a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), and a half note (pizz. - arco). The sixth measure is marked *f* and contains a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), and a half note (pizz. - arco). The seventh measure is marked *f* and contains a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), and a half note (pizz. - arco). The eighth measure is marked *f* and contains a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), a triplet of eighth notes (ric.), and a half note (pizz. - arco). The Gain Levels graph shows a blue line that starts at a low level and rises to a higher level at the end of the eighth measure.

6

43

Vc.

Gain Levels

0 25

46

Vc.

"slap" on the fingerboard

st/m

ord

6

4

8

6

sul D

sul G

ric. ric. ric.

3 3 3

3:2

f

add wooden clothing pin on G string right at bridge

ppp

p

Gain Levels

0

50 **4/8**

Vc.

st/m ord

ric. 3

gliss.

gliss.

3:2

pp p ppp

5:4 5:3

pp ppp

54 **6/8 2/8 4/8 2/8**

Vc.

ord

st/m

gliss.

pp

3

58 **2/8 4/8 2/8 8/8**

Vc.

ord

[lift]

st/m

gliss.

gliss.

gliss.

3 5 3 3

p-pp

61 **8**

Vc.

63 **4** **3** **4** **3**

Vc.

68 **3** **5** **3** **5**

Vc.

rearticulate as needed, imperceptibly if possible

remove pin

61 **8**

Vc.

63 **4** **3** **4** **3**

Vc.

68 **3** **5** **3** **5**

Vc.

rearticulate as needed, imperceptibly if possible

remove pin

74 **5/8** **4/8** *with building energy* **1/8** **7/8**

Vc.

molto

tr

mp *pp* *p* *pp* *mp* *pp*

ord *ST* *ord* *ST* *arco*

3 *3* *3* *4:3* *5* *3* *3:2* *pizz.* *+* *3* *3* *3*

Gain Levels

15 0

79 **7/8** **8/8** **4/8**

Vc.

like a machine gun
ric. ric. ric. ric.

gliss

mf *sub pp* *mp*

8:7 *3* *3* *3* *3* *3:2* *3* *3*

Gain Levels

25 0 15

10

82

Vc.

ord

SP

5:4

3:2

tr

9:8

3:2

tr

9:8

p

mp

mf

5

3:2

mf

5

mp

pp

0

15

25

15

25

15

0

Gain Levels



86

abrupt outbursts

Vc.

SP

ord

ord

SP

ord

SP

ord

SP

ord

SP

ord

tr

tr

7:4

7:4

7:5

3

mp

sfz

mp

sfz

pp

p

sfz

mf

pp

10

0-50-0

50-0

50-0

50-0

10-0

Gain Levels



95

Vc.

ST

3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

sub *ppp*

sp/m

scratch tone

6 BB

ff

0 75 100

Gain Levels

98 $\frac{12}{8}$ $\frac{6}{8}$ $\frac{3}{8}$

Vc.

sp/m

gliss.

gliss.

ord

st/m

pp

f

mf

3

3

Gain Levels

75 25 0

102 $\frac{4}{8}$ $\frac{3}{8}$ $\frac{2}{8}$

Vc.

st/m

arco

pppp

non vib. norm.

molto vib.

4:3

3:2

108 $\frac{2}{8}$ $\frac{4}{8}$ $\frac{3}{8}$ $\frac{4}{8}$

Vc.

[breve] [breve] 4:3

5 7 3

ric. *poco f*

Gain Levels

25

113 $\frac{4}{8}$ $\frac{7}{8}$ $\frac{4}{8}$ $\frac{1}{8}$ $\frac{7}{8}$

Vc.

scr. *sfz* *sfz* *sfz* *st/m* *col legno battuto* *sffz* *sffz* *norm.* *sub ppp* *ord* *p*

Gain Levels

100 0 5 0

14

117 $\frac{7}{8}$ $\frac{2}{8}$ $\frac{8}{8}$ $\frac{4}{8}$

Vc.

ppp *mp* *ppp*

Gain Levels

>10 —————> 0 —————> 15

120 $\frac{4}{8}$ $\frac{8}{8}$

Vc.

mf *pp* *p*

ric. non vib.

Gain Levels

>0

123

Vc.

Gain Levels

4/8 Wildly

sp/m

SP

molto

[lift]

tr

3 3 3

3 3 3

3 3 3

50 40

126

Vc.

Gain Levels

2/8 "slap"

1/8

7/8

1/8

4/8

2/8

ST

ord

ST

col legno battuto

norm.

3:2

3 3 3

8:7

ric. ric. ric. ric.

3 3 3 3

5

3:2

5

9:8

tr

(fff)

fff

0 50

16

131

2/8 4/8 6/8

Vc.

ST SP ord

tr

3:2 5:3

ffff

Gain Levels

0 50

Detailed description: This block contains the first system of a musical score. The top staff is for Vc. (Violoncello) and is divided into three measures with time signatures 2/8, 4/8, and 6/8. The first measure (2/8) contains a series of eighth notes with a tremolo (tr) marking. The second measure (4/8) contains a single eighth note with a tremolo (tr) marking. The third measure (6/8) contains a series of eighth notes with a 3:2 ratio marking and a 5:3 ratio marking. The bottom staff is a Gain Levels graph with a blue line. The line starts at 0, rises to 50, and then remains constant until the end of the section. The graph is labeled 'Gain Levels' and has a blue line with points at 0 and 50.

134

6/8 5/8 4/8

Vc.

sp/m BB

scr. norm. scr.

gliss.

Gain Levels

80 100 90

Detailed description: This block contains the second system of a musical score. The top staff is for Vc. (Violoncello) and is divided into three measures with time signatures 6/8, 5/8, and 4/8. The first measure (6/8) contains a single eighth note with a 'sp/m' marking. The second measure (5/8) contains a single eighth note with a 'BB' marking. The third measure (4/8) contains a single eighth note with a 'gliss.' marking. The bottom staff is a Gain Levels graph with a blue line. The line starts at 80, rises to 100, and then falls to 90. The graph is labeled 'Gain Levels' and has a blue line with points at 80, 100, and 90.

137 $\frac{4}{8}$

ord

norm.

5

4 sec

5

ST

ord

ST

mute strings with L.H.
approx. positions

sub *pp*

Gain Levels

→ 10 → 30 - 15 → 30 → 0

141 $\frac{4}{8}$

ord

st/m

ST

circular bow

7:4

p

ppp

p

pp

ST

ord

st/m

18

147 $\frac{4}{8}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{3}{8}$

Vc.

ord

st/m

st

p

ppp

7:4

153 $\frac{4}{8}$ $\frac{3}{8}$ $\frac{4}{8}$

Vc.

ord

st/m

st

p

pp

p

ppp

7:4

159 $\frac{4}{8}$ $\frac{3}{8}$ $\frac{4}{8}$ $\frac{3}{8}$

Vc.

ord

st/m

st

p

pp

164 $\frac{3}{8}$ $\frac{4}{8}$ $\frac{3}{8}$

Vc.

ord

st/m

ST

ord

p

ppp

7:4

December 14, 2014
Stanford, CA

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