

# Study for Bowed Cardboard

(2011)

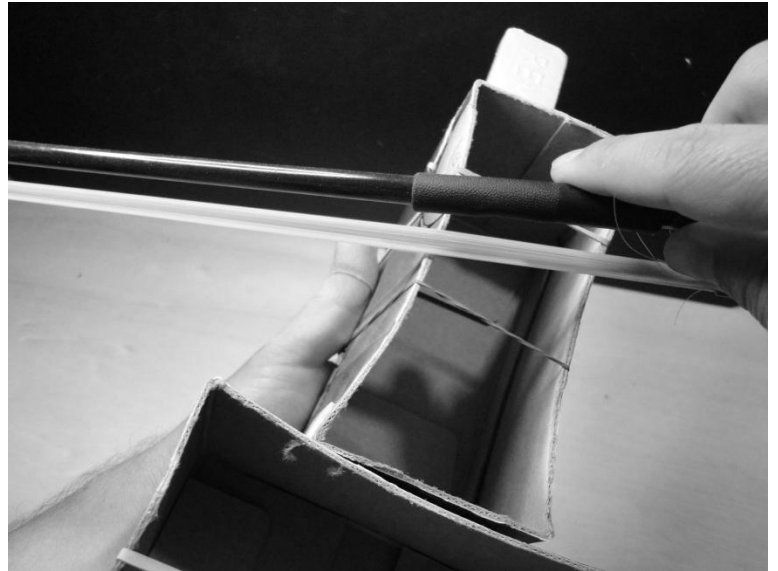
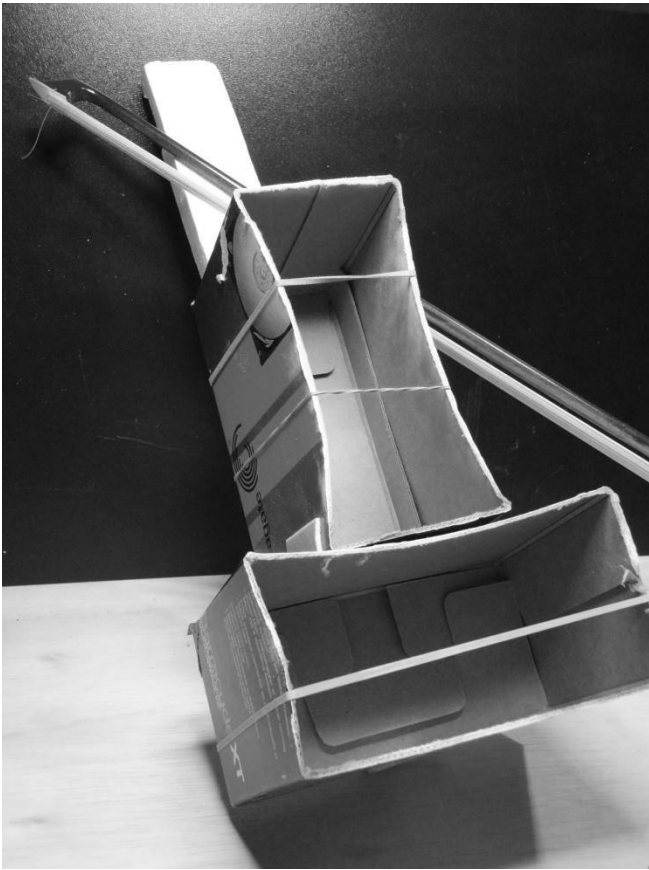
for scratch-o-lin and live electronics

duration: 8 minutes

Lou Bunk

## Study for Bowed Cardboard (2011)

*for scratch-o-lin and live electronics*



### Notes

This study explores the sonic and expressive potential of bowed cardboard. It is performed on a scratch-o-lin (homemade instrument pictured above) accompanied by live electronics generated using Max/MSP.

### Electronics

Three short samples of the scratch-o-lin are granulated using Max/MSP. The grains range from about 5 ms to 1 second in length, and remain unprocessed outside of being cut, spliced and re-arranged. In performance, I step through 25 cues, each altering the graining algorithm (in Max/MSP), which then produces the electronics part. The algorithm is stochastic in nature so that a unique electronics part is created for each performance.

### Performance and the Score

This piece is a structured improvisation lasting about 8 minutes. The score is bare-bones, intended only to help guide my own improvising, and is likely not detailed enough for another performer to play from. It shows the basic structures of the piece: timing of electronics cues, bowing and articulation, pauses, simple graphic representation, and basic proportions. The details and nuances of the scratch-o-lin part are improvised in performance.

### Technical Requirements

*Equipment:* a laptop running Max/MSP, audio card with 4 audio outs, MIDI sustain pedal for cuing Max/MSP, small diaphragm condenser microphone, quad playback (stereo could work),

I will need the laptop/audio interface/MIDI pedal with me on stage to monitor the cuing (of the electronics) as I perform the scratch-o-lin part.

# Screenshot of Max/MSP Patch

### Cue Counter

ON / OFF

1

Next Cue #

0

Current Cue #

### AUDIO IN/OUTS

Start Audio Q

Stop Audio W

Master In 0.25

Master Out 0.25

ch1L 0.0

ch2R 0.0

ch1L 44100 SR

ch2R 0 CPU %

ad\_mme drivers

Analog in 1-2 (Mia) I/O Devices

4 ch version

SP5 where to send mic

LBpattrcontrol

stop GBs

choose xml

studyforbowedcardboard reload xml

text worklog\_3grainbuff.txt

### PATTRstorage2

clientwindow 0 recall a preset

storagewindow 0 interpolate

store a preset non adj. interp. slots

0 0 1st slot

write read 2 2nd slot

off to control pattrstorage of 3 GBs

Current cue pan and buffer for each GB

0.0 1000 1001 0 buff 1

slot 1 interp 1

0 240 0.0 X1

af1 on af1delay af1slot 0.0 Y1

1100. 0 0 buff 2

slot 2 interp 2

0 194 0.0 X2

af2 on af2delay af2slot 0.0 Y2

1100. 0 0 buff 3

slot 3 interp 3

0 1010 0.0 X3

af3 on af3delay af3slot 0.0 Y3

### GRAINBUFF 1

start

set buffer name buff1

1000 buff length 980 buff length to be grained

mono/multi hard pan

1 event skip chance

transients on 2 transient chance

non-transients	transients
0.7 volume low#	0.9 volume low#
0.1 volume range	0.1 volume range
0.8 upper limit	1.0 upper limit
0 % chance sound	

20 Range: RND grain length RND Grain on/off

20 Low#: RND grain length

20 Range: RND Density length RND Density on/off

20 Low#: RND Density length

10 density 20 event length

2 fade in/out length 6 sustain length

10 grain length 0.0 grain volume

12 playback length normal speed

reverse 0 % chance reverse

random quantile on/off read write clear

0 quantile data file name

table click table to edit

0 scrub start point play

0 scrub window length

0 time to complete scrub loop

### GRAINBUFF 2

start

set buffer name buff2

1000 buff length 980 buff length to be grained

mono/multi hard pan

1 event skip chance

transients on 2 transient chance

non-transients	transients
0.7 volume low#	0.9 volume low#
0.1 volume range	0.1 volume range
0.8 upper limit	1.0 upper limit
0 % chance sound	

20 Range: RND grain length RND Grain on/off

20 Low#: RND grain length

20 Range: RND Density length RND Density on/off

20 Low#: RND Density length

10 density 20 event length

2 fade in/out length 6 sustain length

10 grain length 0.0 grain volume

12 playback length normal speed

reverse 0 % chance reverse

random quantile on/off read write clear

0 quantile data file name

table click table to edit

0 scrub start point play

0 scrub window length

0 time to complete scrub loop

### GRAINBUFF 3

start

set buffer name buff3

1000 buff length 980 buff length to be grained

mono/multi hard pan

1 event skip chance

transients on 2 transient chance

non-transients	transients
0.7 volume low#	0.9 volume low#
0.1 volume range	0.1 volume range
0.8 upper limit	1.0 upper limit
0 % chance sound	

20 Range: RND grain length RND Grain on/off

20 Low#: RND grain length

20 Range: RND Density length RND Density on/off

20 Low#: RND Density length

10 density 20 event length

2 fade in/out length 6 sustain length

10 grain length 0.0 grain volume

12 playback length normal speed

reverse 0 % chance reverse

random quantile on/off read write clear

0 quantile data file name

table click table to edit

0 scrub start point play

0 scrub window length

0 time to complete scrub loop

# Study for Bowed Cardboard

## Lou Bunk (2011)

scratch-o-lin

*p* ( \* fast bow )

(med)

Q1 Q2 Q3 Q4

S\* ( \* slow bow )

F\* F ( ) F S (long)

electronics

s-o-l

Q5 Q6 Q7 Q8

S > F

> F w/ elec

elec popcorn

s-o-l

Q9 Q10 Q11 Q12

*f* > >

SCR\* \*scratch SCR

elec

s-o-l

Q13 Q14 Q15 Q16 Q17

*p* > > *f* S

*p*

elec

(S)

