

Georg Hajdu

Exit

for solo violin

and

MAX/MSP

(2001)

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In memory of Nancy Bogost

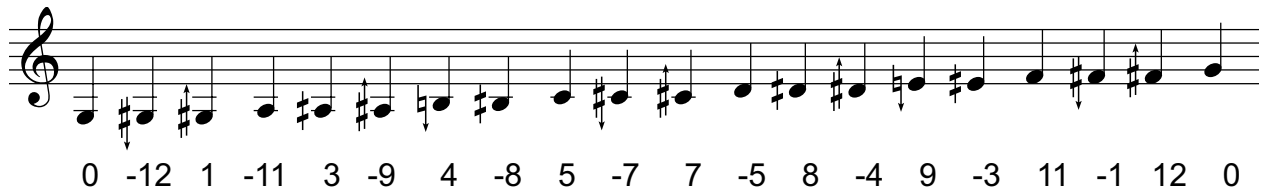
Your eyes—
light shining, blue radiant.
Mine—veiled, duller, nothing revealed.
Meeting our mouths sprung into laughter.
We danced the dance, headlong exploring
limitless secrets, unraveling mysteries.
Sisters—
we shared and not sharing
we fought.
Our fierce rage unsheathed,
sweetly we surrendered.
Now the river stands between us,
our eyes no longer flashing,
tears only falling into the stream,
churning, whirling,
disappearing and resurfacing,
thru kalpas and eons
one hundred thousand manifestations,
warriors and courtesans,
mountains and palm trees.
My sister, mother, child and friend, how can I bear to let you go?
But I see your determined eye.
"On to the other shore!" is your mandate.
Gya te... then go... in peace. It's ok.
I'll catch up with you.

(Jean Wong)

Introduction:

Exit was written in 19-tone equal temperament (19TET). This consonant tuning contains fifths that are only slightly lower than just fifths and other just intervals in close approximation, such as the major third ($5/4$) and the minor seventh ($7/4$). The piece is based on five different harmonic series—all of them containing a g being either the third, fifth, seventh, ninth or eleventh partial. The harmonic series were adjusted to 19TET and notated in standard eighth-tone notation. When performing, the performers needs to bear in mind that eighth-tone notation can only approximate 19TET with a maximum error of 12.5 cts (which is considerably less then the Pythagorean comma, though). Nonetheless, it is desirable that the piece is performed as accurately as possible. He/she is should therefore familiarize himself/herself with the scale (a practice CD is available from the publisher upon request.)

The following figure shows the scale and its deviation from eighth-tone notation in cents:



Electronics:

Exit requires a second performer executing and controlling MAX/MSP patches. MAX is a graphical programming environment for the Apple Macintosh which was mainly developed for musical purposes. The performer uses a microphone for real-time audio processing. There is no prerecorded material except for the playback of the poem (written and spoken by Jean Wong).

The following table lists the processes used in *Exit*.

Process	Abbreviations used in score	Explanation
Granular synthesis: Recording and Playback	GS Rec & Play [(gated)], GS Play, GS Stop	A MAX granular synthesis patch catches the notes performed by the player and starts immediate playback. There are two recording modes: <i>First trigger</i> and <i>continuous trigger (gated)</i> .
Delay	StereoDel, QuadDelay	Delay (2/4 channels).
Spatialization	Spat, Rotation	Quadraphonic spatial effects: rotation and 2-dimensional control by amplitude (EnvFol) and spectral centroid.
Real-time recording and playback	Rec, Collage	Real-time recording of short fragments into 6 different playback buffers.
Transposition	Transp	Quadraphonic pitch-shifting
GRM Tools Plug-in	GRM PitchAccum	GRM PitchAccum is a vst plug-in with some drastic sound effects (a combination of pitch shifting and modulation). The effect preset can be controlled in real-time.
Long reverb	Long Rev	A 15" second reverb
Resonant Filters	Resonances, Reson, EnvFol->Reson	A bank of resonant filters that filter spectral chords out of a noisy signal. Its amplitude may also be controlled by an envelope follower (EnvFol)

Setup:

Exit requires a PowerMacintosh G3 or G4 computer equipped with a multichannel sound card running at 400 MHz and with 128 MBytes of RAM as well as a quadraphonic playback system .

Duration: 10'30"

Exit for violin and live electronics

Text by Jean Wong
In memory of Nancy Bogost

Georg Hajdu

Violin

Electronics

$\text{♩} = 60$

f *mf* *f*

1 (GS Rec & Play) Resonances fade in

"Your eyes—light shining, blue radiant"

*

This system is the first of four, spanning measures 1 to 2. The Violin part begins with a half note G4, followed by a half note F#4, and then a half note E4. The Electronics part starts with a half note G2, followed by a half note F#2, and then a half note E2. The score includes dynamic markings of *f* (forte) and *mf* (mezzo-forte). A bracket labeled '1' encompasses the first measure, with sub-labels 'GS Rec & Play' and 'Resonances fade in'. The lyrics 'Your eyes—light shining, blue radiant' are written below the Violin staff. A tempo marking of $\text{♩} = 60$ is at the top left. A small asterisk is at the bottom left.

3

mp

2 (Rotation start) Resonances fade out

3 (Resonances fade in)

"mine—veiled, duller, nothing revealed"

This system covers measures 3 to 4. The Violin part has a whole rest in measure 3 and a half note G4 in measure 4. The Electronics part has a whole rest in measure 3 and a half note G2 in measure 4. The score includes a dynamic marking of *mp* (mezzo-piano). A bracket labeled '2' is under measure 3, with sub-labels 'Rotation start' and 'Resonances fade out'. A bracket labeled '3' is under measure 4, with the sub-label 'Resonances fade in'. The lyrics 'mine—veiled, duller, nothing revealed' are written below the Violin staff.

5

f

4 (GS Stop) Reson stop

This system covers measures 5 to 6. The Violin part has a half note G4 in measure 5 and a half note F#4 in measure 6. The Electronics part has a whole rest in measure 5 and a half note G2 in measure 6. The score includes a dynamic marking of *f* (forte). A bracket labeled '4' is under measure 6, with sub-labels 'GS Stop' and 'Reson stop'.

7

sfz *mp*

5 (GS Play) Reson start

This system covers measures 7 to 8. The Violin part has a half note G4 in measure 7 and a half note F#4 in measure 8. The Electronics part has a whole rest in measure 7 and a half note G2 in measure 8. The score includes dynamic markings of *sfz* (sforzando) and *mp* (mezzo-piano). A bracket labeled '5' is under measure 8, with sub-labels 'GS Play' and 'Reson start'.

8

f

10

♩ = 90

♩ = 60

ff

sfz

p

(6) GS Stop Reson stop

(7) GS Play Reson start

12

♩ = 90

mf

ff

(8) GS Stop Reson stop

14

♩ = 60

p

f

Rec.

(9) GS Play Reson start

16

♩ = 90

3

f

p

f

mp

f

f

1. only "Meeting our mouths sprung into laughter"

(10) QuadDelay

"We danced the dance"

20 ϕ

sfz p *sfz f* *mp* *f* *p*

3

"headlong exploring
limitless secrets"

*

24 ϕ

sfz p *f* *mf*

"unraveling mysteries"

28 ϕ

f *p* *mf* *f* *sfz p*

3

$\Sigma \square \square \text{al}^{\ast}$

32 ϕ

f *f* *p* *mf*

3

36 ϕ

f *sfz* *mf* *f* *mp*

3

Rec.
1. only
11

** Skip measures 29 - 40 during repeat

40 *f* *mf*

3

42 *Glissando* *sul pont.* *fff* *p* *f* *p* *f*

♩ = 60 sempre acc.

12 "Sisters—
Transposition GS Rec & Play (Gated)

we shared

45 *p* *f* *p* *f* *p*

and not sharing we fought our fierce rage

48 *f* *p* *f* *p* *sim.*

♩ = 80

unsheathed sweetly we surrendered"

13 Transp + StereoDelay

52

♩ = 100

Da Capo al §

56

Rec.

14 Transp + QuadDelay

60

3

♩ = 60

random accents

64

ff

"Now the river stands between us."

15 GRM PitchAccum

Spat controlled by amplitude and centroid

GS Play

67

69

71

" Our eyes no longer flashing."

16 GRM Plug-in parameter change

74

76

"Tears only falling into the stream;"

17 GRM Plug-in parameter change

79

sim.

*

82

84

Rec.

"churning, whirling, disappearing and resurfacing"

18 GRM Plug-in parameter change

87

89

91

"thru kalpas and eons one hundred thousand manifestations"

19 GRM Plug-in parameter change

94

96

97

99

20 "warriors and courtesans, mountains and palm trees"

GRM Plug-in parameter change

Effect fade out

102

104

♩ = 60

107

fff *sempre decresc.*

"My sister, mother, child and friend, how can I bear to let you go?"

21 Long Rev

114

22 GS Play

4

120

4

123

126

Rec.

23

129

24 Effect fade out

131

pp

133

1. only "But I see your determined eye."

25 QuadDelay

sul pont. *sim.* *f* *p*

137

sul pont. *sim.* *sfz* *p* *f* *mp* *sim.* *f* *p*

25 QuadDelay

"On to the other shore!" is your mandate"

sul pont. *sim.* *sfz* *p* *f* *mp* *sim.* *f* *p*

25 QuadDelay

141

sfz p *f* *mf* *sfz p*

145

f *p* *mf* *f* *sfz p*

149

f *f* *p* *f* *mp*

153

f *sfz* *mf* *f* *mp*

1. only
26

157

f *mf* *mf* *mf* *mf*

repeat ad lib.

transition from spiccato to toneless bowing

Glissando

(double stop on E string only)

159

mf

27 Effect stop

$\text{♩} = 60$

8va

much bow pressure

regular bow pressure

161

fff

"Gya te... then go... in peace. It's ok."

28 GS Play Resonances fade in

(8va)

164

EnvFol->Reson

29 "Collage" (Whispered text and playback of recorded passages)

(8va)

166

pppp

Duration 10 minutes