

Echoic Memories

I. *Preface* II. *Jumbled Photographs* III. *Epilogue*

Commissioned by New Music South-West

Piano, violoncello & electronics

Duration c. 8'30''

A. Keegan-Bole

24.01.14

Programme Note:

Echoic Memories

I – Preface

II - Jumbled Photographs

III – Epilogue

This piece contemplates musical memory. Ideas for the piece were originally sparked by a concert of duets given by György and Márta Kurtág whose intimate performance hinted at a relationship experienced in and through music – where musical memories are inextricably bound up with a life spent together. ‘Echoic memory’ is the cognitive process of sounds/music triggering specific memories. Usually these memories are not an accurate narrative but sensorial snapshots loaded with emotion (and often nostalgia). In a nod to instances of my own echoic memories tiny snippets of music by Bach, Britten, Kurtág and Webern form the basis for a lot of the musical material.

The piece opens with a miniature – a one-minute series of piano chords and a cello line that exist as a brief, complete piece. Focusing on thick textures and stark rhythms the language is dark, only softening as the minute comes to an end. The main central section begins with a wash of sound, unfocussed and harsh – searching for something to cling to. Once the cellist gets hold of a full sound the music flits through snippets of material (as though flicking through jumbled photographs), some fragments are repeated, some discarded, whilst others are interrupted as fragments of the opening are found. The second half of the movement settles into a repeated rhythm with the cello holding a consistent pitch as the piano and electronics work through iterations of a remembered theme.

The piece closes with the cello playing a slightly altered version of its opening material.

AKB (programme note from premier performance, February 2014)

Notes Regarding Technical Implementation

The part for electronics uses live signal from the cellist (mono input) and piano (stereo input) as well as short fragments of a single pre-recorded tape track. Processes used include harmonising the live input by means of real-time transposition, granulating the live input (taking fragments of the live sound (grains) and subjecting these to various processes) and holding or freezing a moment of the live input.

The operator should be positioned in a good listening position with clear eye-line to the on-stage performers. Instructions are embedded with the software provided.

Software:

This piece requires bespoke software created in the MaxMSP environment. The up-to-date software package and details of how to run it can be found and downloaded at www.arthurkeeganbole.com (follow links to the download page).

Microphone placement:

Piano:

When developing this piece, two visually discrete, omni-directional microphones (DPA 4061) were used. The aim is to take a detailed, accurate sound from the instrument that has a slight bias toward the upper register. The position will depend on the specific piano used but in development and for the first performance the microphones were positioned around D3 and E5. A ruler was attached securely to the frame of the piano and the microphones attached to it. Generally the best sound was found 2-3 inches away from the striking point of the hammers.

Cello:

When developing this piece, different microphones and mic positions were used depending on the acoustic of the room. Good results in most conditions were found using an AKG C-414 (cardioid). The aim is to take a detailed, accurate sound from the instrument, not to intrude on the player's technique and position in sympathy with the speaker to avoid feedback (see 'speaker placement' below). Generally the best sound is found close to the instrument pointing toward the bridge roughly level with the bottom of the f-hole (i.e. slightly below the bridge). Position the mic on the left hand side of the player to cause minimal distraction. Ensure the microphone is far enough away from the cello to avoid contact during performance.

Speaker Placement:

There are two full-range speakers placed around the piano, these are referred to as 'stereo speakers' in the score. There is one full-range speaker placed with the cellist, this is referred to as 'mono speaker' in the score. They should be positioned visually discretely and in positions that integrate with the sound of the instrument which they are placed with. The object is, as far as possible, to make the sound emanate from the instrument with which the speakers are placed but to avoid feedback into the microphones.

The software has an option of reducing the input and output for the piano to mono (one input, one output) which allows a more simple technologically set-up.

Echoic Memories

I. Preface

A. Keegan-Bole

♩ = c. 54
una corda
resonant & legato throughout
8va-----

Piano

pppp

Violoncello

p *f* *p* *f*

tenuto staccato references woodwind articulation
a slight accent and off-the-string resonance, give a slight bounce to the sound

(8)

5

Pno.

pp

Vc.

mp *p* *pp*

8

Pno.

Vc.

pppp *p*

8

8

p

pppp *p*

rit.

10

Pno.

Vc.

pppp

f p *ppp*

10

10

pppp

f p *ppp*

II. Jumbled Photographs

c. ♩=58

mp (pitch contour follows piano)
broken fragments of piano line & pitches transposed

Stereo Speakers

mp tape (heavy reverb, mushy, no attack but pitches clear) *p* piano pitches held

Piano

no pedal *ppp*

Violoncello

gliss.

mp *p*

Mono Speaker

(harmonised cello) *mp* (dynamic contour follows cello) **P**

Operator

1 2 3 4



9

St

Pno

pppp *mf*

Vc.

f *ppp* *mp* *pp* *mf* pizz

Mo

P

Op

5 6

St

Ped. as required

Pno *p* *mp*

Vc. arco *mp* *mf* *mp* *f* *mp* *p*

Op

II III II I

legato



18 **a little faster** cello pitches held

St *mp*

Pno *f* *pp*

Vc. *mp* *mf* *ppp* *mp* *pp* *mf*

Mo *mp* *(cello transposed)* *(with cello)*

Op

7 8 9 C C C

St *(piano, grainy, spangley transposed CUE 14)*
mp *n*

Pno *mp* *mf* *pp* *mp* *loco*

Vc. *p* *f* *p* *f* *pp* *p espress.*

Op **C** **C** 10 11 12

Pno 28 *8va* *una corda* *pp*

Vc. *8vb* *sul tasto* *pizz* *arco* *pizz*
p *mf* *p* *mf*

Pno 35 *tre corde* *8va* *loco* *f* *p* *mf* *p*

Vc. *arco* *sul tasto* *pizz* *arco* *0* *arco*
p *mf* *p* *pp* *mf*

38 grace notes on the beat

8va

loco

Pno

Vc.

mp f mf p

red.

II I



40

tape

St

Pno

Vc.

Op

arco

legato

II III

(meld into tape)

mp mf mp f pp

poco accel. a tempo

44

St *transposed cello (in background)*
(dynamic contour matches)

Pno

Vc. *molto vib.* *poco accel.* *a tempo*
ric...
molto vib.

fp > *fp* > *ff* < *ff* < *fff* < *f*

Op 14 15

48

St *(cello chords louder in mono speaker)*

Pno *piano chords held over each barline before morphing into the next chord until bar 62*

Vc. *non vib.* *nat.*

Mo *ppp* *f* *p* *p* *same dynamic shape poco a poco cresc.*

Op *p* *(dynamic contour matches cello)*

16 17 18 19 20 21

53

St

(8)

Pno

Vc.

Mo

Op

22 23 24 25 26

58

St

(8)

Pno

Vc.

Mo

Op

27 28 29 30

63

St *p* (tape)

(held piano)

(8) -----

close key lid, leave the stage

Pno

wedge sustain pedal with doorstop

Vc. *mf* *p* *p* *pp*

Mo

Op **P** **P** **P**

31 32 33

68

St *rubato* *slower*

Vc. *p espress.* *mf* *p* *pp*

Op 34

III. Epilogue

♩ = c. 52 (a little slower)

rubato
con sord

Vc.

p *f* > *pp* *mp*

III IV II III II III I II

5

mf *pp* *mp* > *pp* *f* > *mp*

II I II I II I I II

9

p *mf* *p* *pp*