

Newton Armstrong

a line alongside itself

for solo cello
with four pre-recorded cellos
and electronic sounds

2018-19

Programme note

A line alongside itself is part of a series of pieces that explore the in-between of musical line and surface. All of the pieces are made of interacting layers of repeating, self-similar patterns, and all are concerned with the gradual transformation of space and texture.

Performance notes

Preparation

The music consists of three distinct layers: 1) solo cello, 2) four pre-recorded cellos, and 3) a four-voice texture of electronic sounds. The solo cellist performs part 3. Parts 1, 2, 4 and 5 are to be pre-recorded.

Performance style

In sections **A1** through **C7**, the interactions between the five cellos create psychoacoustic spatial effects. These effects critically depend on consistency of tone and attack across all voices. The performance style should be even, measured, and precise. Decrescendi should always be performed on the down-bow with a Baroque attack. It may be useful to hold in mind contemporary performance practices of Elizabethan viol consort music.

Microtones

A scale of equal-tempered 1/8th tones is employed: ♭ ♭ ♭ ♯ ♯ ♯ ♯ ♯ ♯ ♯

Precision in intonation is critical not only to harmony, but also to the role that beating tones play in the projection of certain patterned spatial effects. For extra precision in performance, a digital tuner may be used in conjunction with a contact microphone.

Click-track

A click-track is required in performance and when making the pre-recorded parts. Where possible, a visual click-track is preferred to an audio click-track, e.g. a miniature display attached to the music stand. Two click-tracks are provided: 1) a YAML file with inter-onset timings and a beat hierarchy specification, for use with a visual display, and 2) an audio file for use with an in-ear monitor. The files are available at: <http://staff.city.ac.uk/newton.armstrong.1/a-line-alongside-itself/>.

Performance notes (cont.)

Stage setup and diffusion of electronic sounds

Each of the four pre-recorded cello parts is routed to one of four loudspeakers, labelled 1, 2, 4, 5 in the stage setup diagram below.

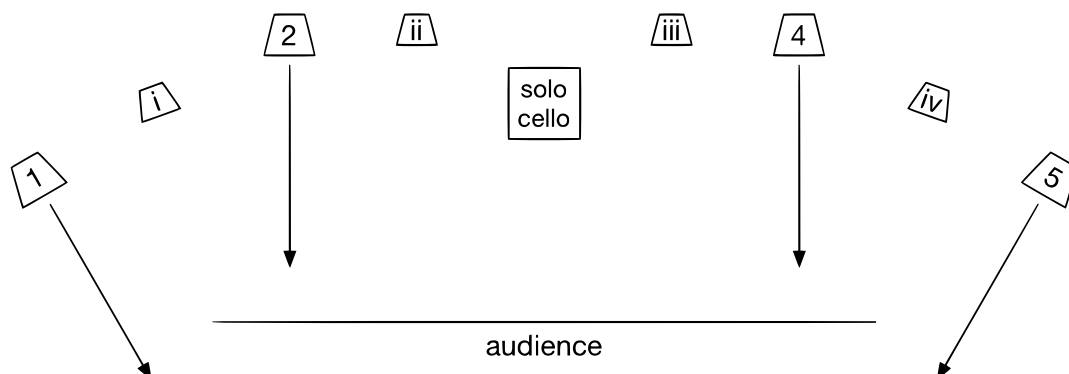
Six overlapping textures of electronic sounds are employed, first appearing shortly after section marker **B7**. Each of these textures is comprised of four voices, with each voice routed to one of four loudspeakers, labelled i, ii, iii, iv in the diagram below. Where an eight loudspeaker system is not available, these voices may be panned to the corresponding positions in a four loudspeaker system.

The electronic textures are triggered at the following offsets from the beginning of the piece:

- A 7'48.33" (bar 93, beat 2)
- B 8'35.00" (bar 103, beat 1)
- C 9'20.00" (bar 112, beat 1)
- D 10'07.22" (bar 119, beat 1)
- E 12'23.87" (bar 150, beat 1.5)
- F 12'32.87" (bar 152, beat 1)

Flexible control over the levels of the electronic textures is required in performance. For this reason, the electronic textures should not be mixed into a composite soundfile with the pre-recorded cellos.

Soundfiles are available at: <http://staff.city.ac.uk/newton.armstrong.1/a-line-alongside-itself/>.



a line alongside itself

for Séverine Ballon

Newton Armstrong

1 **A1** $\text{♩} = 36$ **7x** **A2** **4x** **A3** **3x**

2 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

3 (solo) *mp* *mp* *mp* *mp* *mp* *mp* *mp*

4 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

5 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

23 **A4** **3x** **A5** **5x** **A6** **3x**

1 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

2 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

3 (solo) *mp* *mp* *mp* *mp* *mp* *mp* *mp*

4 *mp* *mp* *mp* *mp* *mp*

5 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

42 **A7** **5x** **A8** **4x** **A9** **3x**

1 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

2 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

3 (solo) *mp* *mp* *mp* *mp* *mp* *mp* *mp*

4 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

5 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

60

B1 **5x B2** **4x B3** **3x**

1 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

2 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

3 (solo) *mp* *mp* *mp* *mp* *mp* *mp* *mp*

4 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

5 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

80

B4 **2x B5** **3x B6** **5x B7**

1 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

2 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

3 (solo) *mp* *mp* *mp* *mp* *mp* *mp* *mp*

4 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

5 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

94 (97) (100) (103)

4x B8 **3x C1**

1 *mp* *mp* *p* *p* *p* *p* *p*

2 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

3 (solo) *mp* *mp* *mp* *mp* *mp* *mp* *mp*

4 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

5 *mp* *mp* *mp* *mp* *mp* *p* *p*

114 *rall.* (♩ = 18)

1 *p* *p* *p* *p* *p* *p* *p*

2 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

3 (solo) *mp* *mp* *mp* *mp* *mp* *mp* *mp*

4 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

5 *p* *p* *p*

121 **C2** ♩ = 36 **x2** **C3**

1 *mp* *mp* *mp* *mp* *mp* *mp*

2 *p* *mp* *p* *mp* *p* *mp*

3 (solo) *mp* *mp* *mp*

4 *p* *mp* *p* *mp* *p* *mp*

5 *mp* *p* *mp* *p* *mp* *mp*

132 (134) (136) (138) (140) (142) **6x** **C4** *rall.* (♩ = 18)

1 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

2 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

3 (solo) *mp* *mp* *mp* *mp* *mp* *mp* *mp*

4 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

5 *mp* *mp* *mp* *mp* *mp* *mp* *mp*

150 **C5** ♩ = 30 3x **C6** ♩ = 24 2x

1 *mp* *mp* *mp* *mp* *mp* *mp*

2 *mp* *mp* *mp* *mp* *mp* *mp*

3 (solo) *mp* *mp* *p*

4 *mp* *mp* *mp* *mp* *mp* *mp*

5 *mp* *mp* *mp* *mp* *mp* *mp*

166 **C7** rall.....

1 *mp* *mp* *mp* *mp* *mp* *mp*

2 *mp* *mp* *mp* *mp* *mp* *mp*

3 (solo) *mp* *mp* *mp* *mp* *mp* *mp*

4 *p* *mp* *mp* *mp* *mp* *mp*

5 *mp* *mp* *mp* *mp* *mp* *mp*

175 (♩ = 18) 48" **D1** ♩ = 48 3x

Bow changes in parts 1, 2, 4 and 5 should be synchronised, usually on the 1st beat of the bar.

1 *mp* *mp* *mp* *mp* *mp* *mp* *wood mute*

2 *mp* *mp* *mp* *mp* *mp* *metal mute* *p*

3 (solo) *mp* *mp* *mp* *mp* *mp* *metal mute* *p*

4 *mp* *mp* *mp* *mp* *mp* *metal mute* *p*

5 *mp* *mp* *mp* *mp* *mp* *wood mute* *mp*

D2

189 no mute

1 *mp* *mf* *pp* *mf* *ppp*

2 no mute
p *ppp* *mf* *ppp* *ppp* *mf* *ppp*

3 (solo)

4 no mute
p *ppp* *mf* *ppp* *ppp* *mf* *ppp*

5 no mute
mp *mf* *pp* *mf* *ppp*

D3

196 wood mute

1 wood mute
mp *p* *mp*

2 wood mute
mp *p*

3 (solo)

4 wood mute
mp *pp*

5 wood mute
p *p* *mp*

D4 **2x**

203

1 *pp* *pp*

2 *p* *pp < p* *p* *pp < p*

3 (solo)

4 *p* *pp < p* *p* *pp < p*

5 *pp* *pp*