

Austin Franklin

*Bloom*

for violoncello and reflexive electronics

(2021)

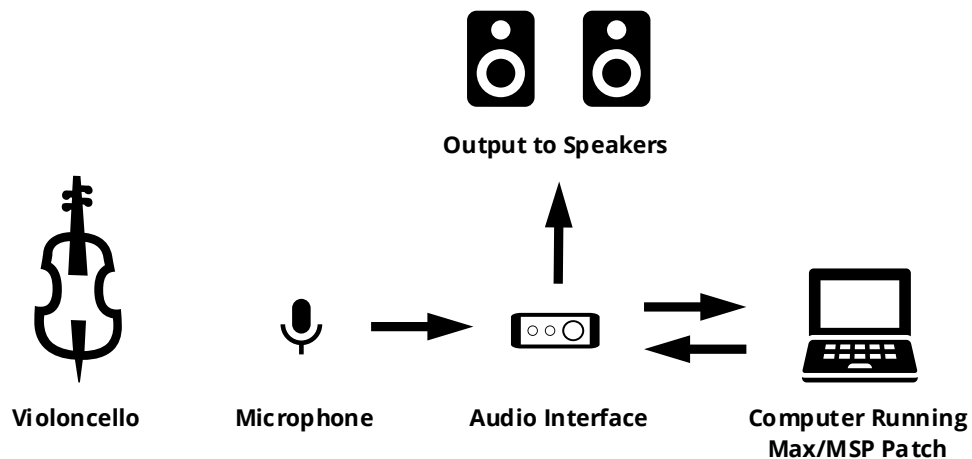
“A flower does not use words to announce its arrival to the world; it just blooms.”  
— **Matshona Dhliwayo**

## Program Notes


Bloom is a piece for violoncello and reflexive electronics that explores tension, using the metaphor of a blooming flower as the basis from which the musical material and form are derived. The work begins with a very simple melodic idea using natural harmonics. These harmonics are developed throughout the piece, eventually blurring the line between pitch and noise, meter and aleatory, and acoustic and electronic elements. The electronic element of the piece is realized using live input from the cello only. This relies on specific musical parameters (namely amplitude and frequency) to control how the input is processed. The piece concludes with a quasi-recapitulation of the opening, this time incorporating non-harmonic tones. This is the most mature statement of the original melodic idea in the piece, which signifies completion of the flowering process.

## Technical Notes

Bloom uses a Max MSP program (or patch) by which to process and transform the audio. The patch contains instructions on how to set up, operate, rehearse, and finally perform the piece. Please email me for the patch after purchasing, or if you have any questions directly at [austinalexanderfranklin12@gmail.com](mailto:austinalexanderfranklin12@gmail.com). As for the technical requirements and equipment set up, please use the following configuration:



## Performance notes

Ord.	ordinario (normal manner of playing)
OP	apply bow pressure to distort pitch, but not remove it completely
	highest possible pitch on the given string(s)

The electronic sounds used in the piece come solely from the live input to the microphone. There are no triggers for the individual sections, and no MIDI keyboard or instrument is required. Instead, the processing is controlled via specific musical parameters. The resulting sound is not notated in the score since it will sound different for repeat performances. However, the musical parameters and their general effects on the input are described as follows:

- As the loudness increases, the reverb decay time is increased. Brightness, or “glittery-ness” is also increased via down sampling on the signal.
- As lower pitches are performed, a variable delay time is increased. There are three separate delay lines in total, each with independent delay times that are determined by pitch. Frequencies below A 440Hz are also pitch shifted down a perfect 5<sup>th</sup>.
- As the rate of discrete pitch change increases, the location of a sound in the stereo field is varied more rapidly.

With the exception of the improvised section at letter C, the pitches and dynamics should be taken as literally as possible because they exhibit the most control over audio processing.

The notation provided at the improvised section should be used as a guide, considering the way the electronics operate. This section may be performed as written or may be changed to incorporate more percussive elements (knocking on body of instrument, snap pizz., etc.). However, the overall length of the section should be mostly left unchanged. The electronics during this section should also be at their most active.

Bloom was commissioned by Eduard Teregulov

Duration: ca. 8'00"

## Cello: Natural Harmonics

The fingerings and harmonics in the piece were composed using the following natural harmonics chart by Andrew Hugill. Sounding pitches are not provided in the score but can be referenced here if required. The roman numeral notation in the score corresponds to the string number on which the harmonic should be performed.

The chart displays natural harmonics for the cello across four strings (I, II, III, IV). Each string is represented by a five-line staff with a bass clef and a key signature of one sharp (F#). The harmonics are arranged in a grid-like fashion across the strings and positions. The left hand fingers are indicated by numbers 1-4, and the right hand fingers are indicated by numbers 1-4. The harmonics are arranged in a grid-like fashion across the strings and positions.

String	Position 1	Position 2	Position 3	Position 4	Position 5	Position 6	Position 7	Position 8	Position 9
I	(1, 1)	(1, 2)	(1, 3)	(1, 4)	(1, 5)	(1, 6)	(1, 7)	(1, 8)	(1, 9)
II	(1, 1)	(1, 2)	(1, 3)	(1, 4)	(1, 5)	(1, 6)	(1, 7)	(1, 8)	(1, 9)
III	(1, 1)	(1, 2)	(1, 3)	(1, 4)	(1, 5)	(1, 6)	(1, 7)	(1, 8)	(1, 9)
IV	(1, 1)	(1, 2)	(1, 3)	(1, 4)	(1, 5)	(1, 6)	(1, 7)	(1, 8)	(1, 9)

# Bloom

for violoncello and Reflexive electronics

♩ = 105-115 **Tranquil**

Austin Franklin

Violoncello

*mp*

*fp* *mp*

## A Emerging

*p* *fp* *fp* *p*

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

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

III IV IV III II IV III I

*mf* *pp* *mp*

O.P. 2nd time

II/III II III III II II III IV III IV III

*fp* *mf* *f*

**B** With a sense of unrest

IV III II I II III II II/III IV III II

*mp* *fp* *mp*

I II IV III II III II/III III IV II III

*f* *mp*

III IV II III III/IV IV III II I II III II

*mf* *f* *mp*

IV III II I II I II III IV IV III II I II

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

I II III IV

3 3

*p* *f* *mf*

II/III

IV III II I

II III

IV III

I/II

3 3 3 3

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

II III

IV III

II III

IV III

II III

II/III

3 3 3 3 3

*mf* *f*

I/II

3

O.P.

Ord. II/III

*fp* *ff* *ff* *sub.mf*

**C** Violently unfurling

Improvise with harmonics and glissandos for the given duration, incorporating small pauses and ricochets throughout each phrase.

6-8'

O.P.

Ord. I/II

*ff* *sub.mf*

8-10'

arco

3

5

O.P.

Ord. III/IV

*mf* *ff* *sub.mf*



10-12'

3 5

*mf*

O.P

15-20'

*ff*

*sub. mf*

Ord. I/II

5 7

*f*

*ff*

rit. III 5-8'

*pp*

**D** In Full Bloom

I III IV II I/II

*mf*

III I III II III

*f*

II/III I/II I III

*mp*

II III III/IV II/III I/II

*f* *pp*