

# **as birds fly backwards**

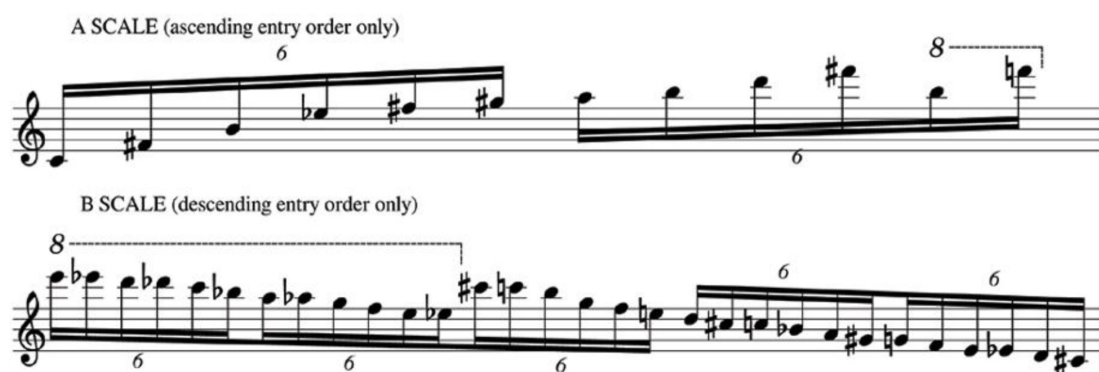
**scored for: solo flute + electronics**

*Duration: 3' 38" or 5'08" (incl. improvised section)*

Nik Bizzell-Browning (2017)

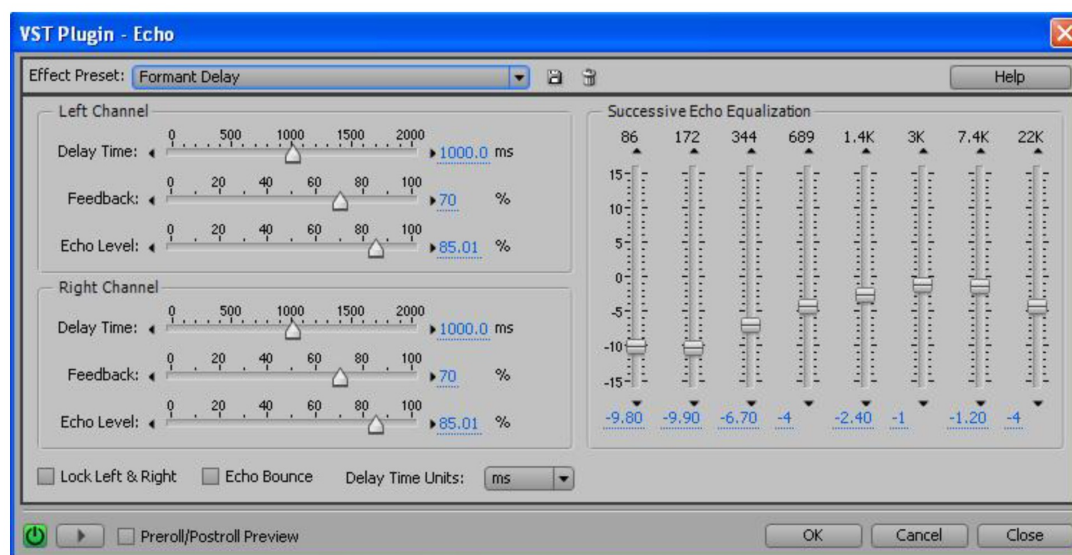
### Performance notes for the optional improvisational section, bar 31 (duration 1' 30")

Within any consecutive 2 bar section (8", 10", or 12"; duration), pitches from the A scale should only be introduced in ascending order, with those from the B scale in descending order. This section is included as a device to encourage (or force) the performer into a more thorough engagement with the directional and durational scalic concepts employed.



### Live electronics (formant delay):

Echo/delay rate = 1 second (1,000ms), dynamic decay rate to zero = 12 seconds (85% -> 0% approx.).



### Composers notes:

This sister piece to *A gilded cage* (2017) uses the same ascending only 'A' (LIE) scale juxtaposed with a descending only 'B' (OG) scale, and similar cellular (pitched and rhythmic) material. Writing this piece coincided with reading Legor Reznikoff's discussions (2002, and 2005) regarding the relationship between echo, resonance, and the location of Paleolithic paintings within the Geißenklösterle and Hohle Fels caves.<sup>1</sup> The formant delay is here used to explore the implicit/explicit nature of strict echoic pulse, writ large (so to speak). As the delay does a lot of the temporal heavy lifting, the recycled material from *A gilded cage* is used far more sparingly. What is scored is obviously not what is heard (see diagram below), and the performer is here being asked to literally play *with* time, *in* time.

Fl.  $\text{♩} = 60$

bar 9 (as written) || bar 9 (as sounded)

Bar 9; *As birds fly backwards* (2017)

Prior to (and whilst) composing this piece, I spent a lot of time listening to and making field recordings of birdsong. By largely disregarding Messiaen-esque pitched authenticity and focusing on the *rhythms* of birdsong, I concluded that staggered entry points (onset asynchrony) were crucial to defining the overall collective dawn/twilight sound.<sup>2</sup> This device is used throughout and serves up some interesting rhythmical patterns in conjunction with the formant delay. I did, however, find a notable exception to the onset asynchrony principle when listening to three consecutive phalanxes of migrating ducks flying overhead. In all instances, the

<sup>1</sup> The earliest known potentially "pitched" instruments, flutes with multiple holes (discovered in the Geißenklösterle and Hohle Fels caves, Swabian Alb, Germany), were thought to demonstrate that Palaeolithic music-making utilised scales of some sort. Although this is now contested (Diedrich, 2015), Legor Reznikoff studied the acoustics of painted caves over many years and found that "most pictures are located in, or in immediate proximity to, resonant places" (2002, p. 43), and that "the density of pictures in a location of a cave is proportional to the quality of the resonance of this location" (Reznikoff, 2005, sec. 2.1). When considered along with Lya Dams's suggestion that stalagmitic formations may have been used as Palaeolithic lithophones (Dams, 1985), perhaps, like us, our Palaeolithic ancestors had an awareness of and possible penchant for reverb, echo, and therefore polyrhythmic metrical frameworks. The neuropsychological aspects of our ability to "literally" juggle multiple inner-clock temporalities (metres) have only recently started to be addressed (e.g. Fujioka *et al.*, 2014), but a question arises as to the extent that echoic (precise and countable distance-related) pulses might have helped to facilitate the development of musical syntax from rhythms.

<sup>2</sup> Although Messiaen uses "attack" magnitude as a serial parameter (Tsaregradskaya, 2013, p. 152), I could not find specific reference to this in any Messiaen studies related to birdsong.

leader's low pitched staccato rhythmic flight call corresponded closely to the wing speed of each phalanx, reminiscent of the role of a coxswain in a rowing boat crew. It seems that, as with the sprinter's starter pistol and echo location, when timing really matters, nature prefers auditory rather than visual cues. The timing of onset events is an important consideration in all of my work. This piece is an exploration of episodic (and echoic) memory.

### **Bibliography:**

Dams, L. (1985) 'Palaeolithic Lithophones: Descriptions and Comparisons', *Oxford journal of archaeology*, 4(1), pp. 31-46. doi: 10.1111/j.1468-0092.1985.tb00229.x.

Diedrich, C.G. (2015) 'Neanderthal bone flutes': simply products of Ice Age spotted hyena scavenging activities on cave bear cubs in European cave bear dens', *Royal Society Open Science*, 2(4), pp. 140022. doi: 10.1098/rsos.140022.

Fujioka, T., Fidali, B.C. and Ross, B. (2014) 'Neural correlates of intentional switching from ternary to binary meter in a musical hemiola pattern', *Frontiers in Psychology*, 5, pp. 1257. doi: 10.3389/fpsyg.2014.01257.

Reznikoff, I. (2002) *Prehistoric paintings, sound and rocks*. Available at: [https://www.i-s-c-a.org/documentloader.php?id=851&filename=reznikoff\\_prehistoric-paintings-sound-rocks.pdf](https://www.i-s-c-a.org/documentloader.php?id=851&filename=reznikoff_prehistoric-paintings-sound-rocks.pdf) (Accessed: 2 July 2018).

Reznikoff, I (2005) 'On Primitive Elements of Musical Meaning', *JMM: The Journal of Music and Meaning*, Fall 2004/Winter 2005, Section 2. Available at: <http://www.musicandmeaning.net/issues/showArticle.php?artID=3.2> (Accessed: 2 July 2018).

Tsaregradskaya, T. (2013) 'Sound Attack in the Works of Olivier Messiaen: Total Serialism Revisited/Garso ataka Olivier Messiaeno muzikoje: Totaliojo serializmo patikslinimas', *Lietuvos muzikologija*, (14), pp. 152-159.

Flute

$\text{♩} = 60$

8<sup>1</sup>

*p* *mp* *p* *mp*

4

Fl.

*mp* *mp*

8

Fl.

6

11

Fl.

*mf* *p*

14

Fl.

*mf* *mp*

17

Fl.

*mp* *mf*

18

Fl.

*mp* *mf* *mp* *pp* *p* *mp* *3* *3*

21

Fl.

*mp* *mf* *mp* *mf* *tr*

23

Fl.

*mp*<sup>3</sup> *mf* *tr* *tr* *tr* *tr* *tr* *3* *mp*

26 Fl. *mf* *mp* *mf*

29 Fl. *p*

30 Fl. *mf* *mp*

31 Fl. Optional section: improvise for 15 Bars (1' 30") using directional attributes of scales A and B.  
If not improvising, treat bar 31 as one bar.

32 Fl. *mf*

34 Fl. *mp*

37 Fl. *mp* *mp* *p*

41 Fl. *a niente*