

A graphic of a sunburst with rays emanating from a central point, set against a blue sky background. The rays are white and light blue, creating a bright, glowing effect.

SUN PROPELLER

FOR VIOLIN AND ELECTRONICS

NINA C. YOUNG

[FULL SCORE]

SUN PROPELLER
 for violin and electronics
 written for Emily Westell
 duration: ~10 minutes

POETICS:

The title, *Sun Propeller*, refers to the propeller-like rays of light that occur when sunbeams pierce through openings in the clouds. Scientifically, these columns of light that radiate from a single point in the sky are known as crepuscular rays. The actual phrase “sun propeller” is a literal translation of the Tuvan word for these sunbeams: *Huun-Huur-Tu* (also the name of a famous Tuvan folk singing group).

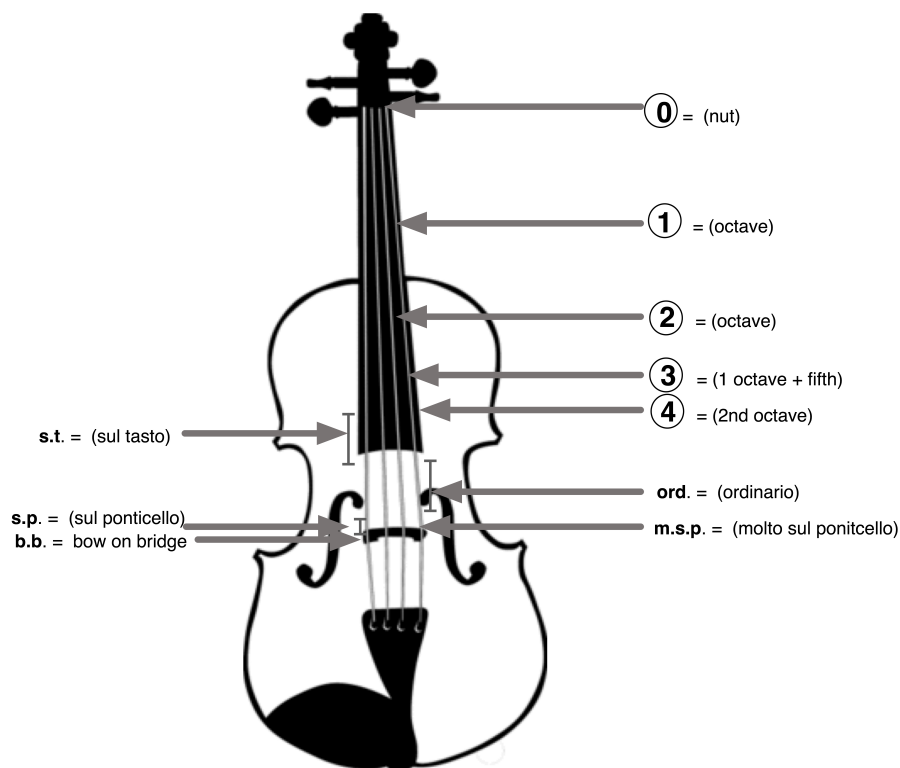
The idea for this work came while I was researching the music of Tuva, a culture in southern Siberia. Their music, particularly the practice of throat singing, is a vocal imitation of natural surroundings (the sounds of babbling brooks, wind resonating against mountains, etc.) and is used to pay respects to the spirits of nature. This type of Tuvan music is built up upon a low drone-tone with overtones floating above. The music values timbre and vertical intervals over traditional melodic and harmonic principles. While *Sun Propeller* does not attempt to imitate Tuvan music in anyway, it borrows the concept of the static drone and timbre preference in the language used to write the violin and electronics.

NOTATION:

Violin scordatura:



Bow placement key:



When bowing at points 1 to 4, the possibility of evoking subtones exists – the violinist should try and achieve this during the performance.

NOTATION LEGEND:

#	sharp
♯	quarter-tone sharp
♮	natural
♭	quarter-tone flat
♮	flat
♮	3/4-tone flat
◊ ◊	diamond note-heads for harmonics
*	x-note-heads represent left-hand placement along the fingerboard during scratch tone; the pitch is secondary to the scratch tone.
—	Fermata lunga – with specified duration in seconds
<i>non vib.</i>	non vibrato
<i>vib.</i>	vibrato
<i>m. vib.</i>	Molto vibrato
<i>ord.</i>	ord. vibrato
(fast bow)	use more bow than usual

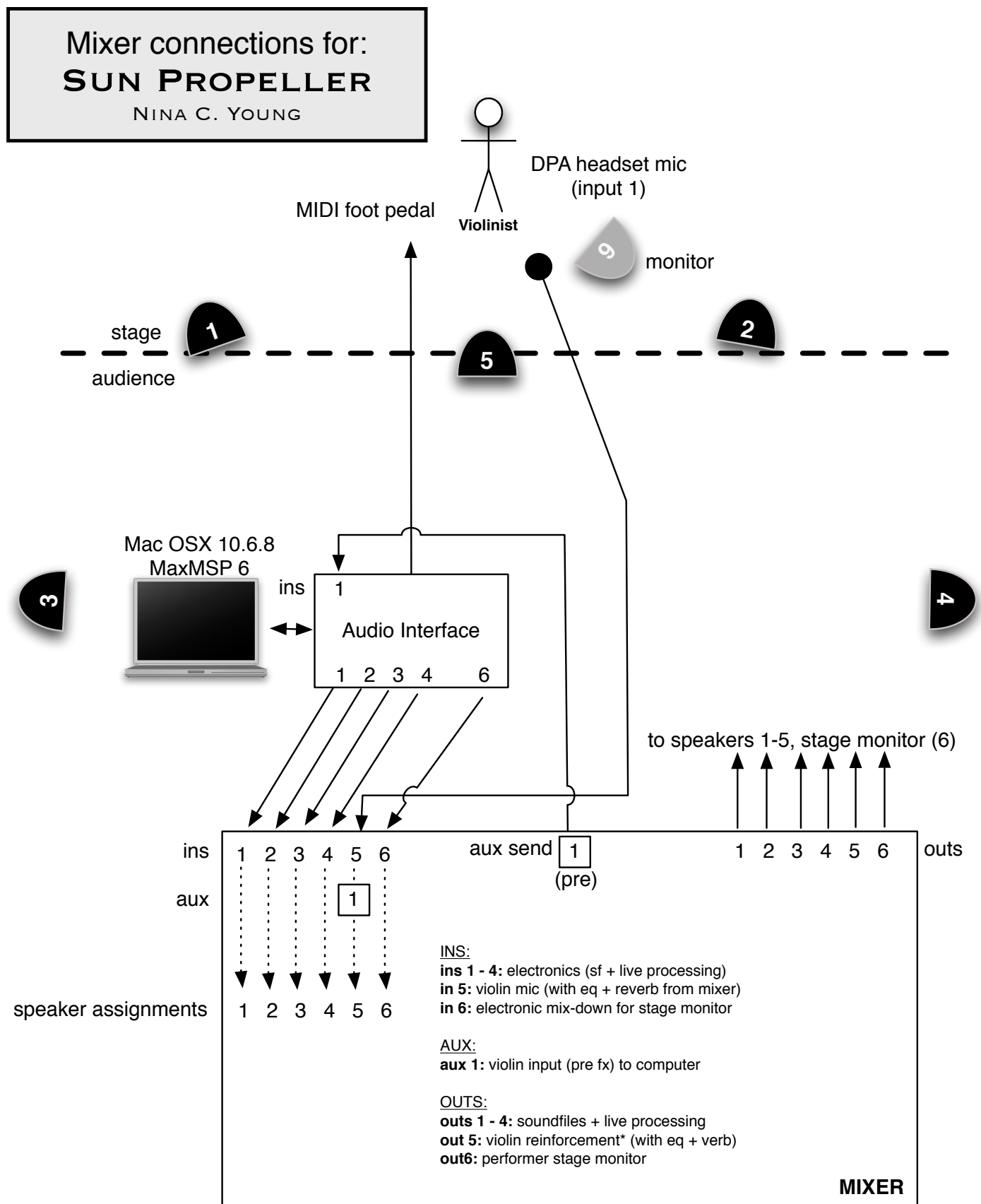
ELECTRONICS:

The electronics consist of live processing and triggered samples. The performer triggers events with a foot pedal. The electronics consist of a drone based on the overtone spectrum of D, the A, then D again (the drone gradually manipulates timbres throughout the piece), and timbre manipulations of the live violin sound (adjusting overtone spectra, harmonizers, ring modulation, etc.). The electronics are controlled using a MaxMSP patch. Quadraphonic, 5-channel, and Stereo versions are available.

Please contact Nina C. Young at ninacyoung.composer@gmail.com for complete instructions and an updated version of the patch.

TECHNICAL REQUIREMENTS:

- 1 Macbook Pro running Max6
- 1 microphone for amplification and processing of violin. (Preferably a DPA headset microphone or similar, however, a good quality condenser microphone above the player would also work.)
- 1 midi foot pedal
- 1 midi interface (to receive foot pedal information)
- speakers:
 - 4: quadraphonic + optional center channel for live sound reinforcement
 - Stereo version is available
- audio interface:
 - minimum: 1 input, 4 outputs
- stage monitor (optional, output 6)



*violin sound reinforcement may not be necessary

SUN PROPELLER

FOR VIOLIN AND ELECTRONICS

NINA C. YOUNG

Natural and improvisatory
(♩ = 54 - 62)

Scordatura

Violin (at pitch)

Electronics

0 SF00a & SF00b: quiet pink noise soundfile. Trigger this while you are setting up on stage; it will loop until you press 1 and begin the piece.

1 SF01 (drone), fade out of Cue00

2 spdrone.1 fades in

Scord.

Violin

Electr.

3 SF03 spdrone.1 brightness change

Scord.

Violin

Electr.

4 SF04

5 spdrone.1 comb-filter-level + filter-fundamental change

Scord.

Violin

Electr.

6 SF06

7 SF07

Scord.

Violin

Electr.

Scord. *p* *mf* *f* *mp*

Violin

Electr.

8

Scord. *f* *p* *mf* *p* *mf*

Violin

Electr.

9 SF09
spdrone.1 gain-level increase

Scord. *f* *mp* *f* *p* *mf*

Violin

Electr.

10

Scord. *f* *p* *f* *pp* *f* *p*

Violin

Electr.

10 SF10
spdrone.1 fade-out
spdrone.2 fade-in
spgran.1 fade-in

Scord. *mp* *p* *mf* *p* *mf* *mf* *p* *pp* *p* *mp*

Violin

Electr.

11 SF11
spgran.1 bin-shift

Scord. *f* *mp*

Violin

Electr.

12 SF12
spgran.1 bin-shift

Scord. *f* 1 3 0 4 7 27 2 4 (fast bow) 3

Violin

Electr.

Scord. *s.p.* ord. 1 2 7 *mp* 29 6 *mf* *s.p.*

Violin

Electr.

13 spdrone.2 gain decrease

Scord. 30 31 32 *f* *mf* *f* *mf* *f*

Violin

Electr.

14 spdrone.2 gain increase

15 spdrone.2 gain increase

16 spdrone.2 gain increase

Scord. 33 34 35 *ff* *p* m.s.p. 0 4 0 0 1 0 3 0 1 *s.p.*

Violin

Electr.

17 spdrone.2 gain increase

18 spdrone.2 gain fade-out end SF11 + SF12

19 SF19 spdrone.2 fade-out spgran.1 (remains) spdrone.1 fade in (slow, w/new parameters)

Scord. *accel.* ord. *mp* *f* *ff* *scratch tone* 36 I. II. *ff*

Violin

Electr.

20 SF20 spgran.2 (fade-out, slow)

Scord. 37 38 39 40 41 42 43 *scratch tone* ord. II. III. 6 sec.

Violin

Electr.

21 spdrone.1 gain decrease

* x-note heads represent left-hand placement along the finger-board, the scratch tone should be more prevalent than the pitches

44 *scratch tone* *ord.* 45 *flautando* 46 47 48 49

Scord. *mf* *p* *p* *mp*

Violin *p* *mp*

Electr. **22** SF22

50 51 52 53 54

Scord. *p* *f* *p* *mf* *p* *f*

Violin *p* *f* *p* *mf* *p* *f*

Electr.

55 56 57

Scord. *mp* *n* *n* *p* *f* *p*

Violin *mp* *n* *n* *p* *f* *p*

Electr. **23** SF23 *spdrone.1 fade-out* **24** *spdrone.2 to spglide.1 to spgran.1*

Freely, molto espressivo

58 59 60

Scord. *mp*

Violin *mp*

Electr.

61 62 63

Scord. *f* *p* *p* *mf*

Violin *f* *p* *p* *mf*

Electr. **25** SF25 *spdrone.1 (orig) fade-out spdrone.2 to spglide.1 to spgran.1*

64 65 66 67

Scord. *f* *mf* *n* *f* *mp* *n* *f*

Violin *f* *mf* *n* *f* *mp* *n* *f*

Electr. **26** *spdrone.1 gain decrease*

68 ord. → s.p. → ord. III. *m. vib.* *p* < *mf* > 3
 69 ord. → m.s.p. → ord. non. *vib.* → *m. vib.* → non. *vib.* *mp* 3 3 *n* 70 ord. → m.s.p. *m. vib.* *mp* 3 < *f* > 3

Scord.
 Violin
 Electr.

27 SF27 spdrone.1 gain increase

71 s.p. → ord. *pp* *accel.* = 80 s.p.
 3 0 6 6 6 6 6 6 6 3

Scord.
 Violin
 Electr.

~x10 m.s.p. → b.b. *mf* 9 72 ~ 4 sec.

Scord.
 Violin
 Electr.

28 SF28 spdrone.1 decrease

Introspectively = 60 b.b. → s.p. → ord. → s.p. → b.b. *p* 73 I. II. ~ 2 sec. s.p. → ord. → s.p. → b.b. *n* < *p* > ~ 4 sec. 74 75 76

Scord.
 Violin
 Electr.

29 SF29

b.b. → ord. → s.p. → ord. → b.b. ord. III. IV. 77 *p* 78 *mp* *mf* 79 (3) ~ 25 sec. (3) → b.b. ~ 6 sec. *p* *n*

Scord.
 Violin
 Electr.

30 spdrone.1 hairpins (over 10 seconds) SF fade out (~30 seconds)

31 patch off