SUN PROPELLER

FOR VIOLIN AND ELECTRONICS

NINA C. YOUNG

[SCORE (WITH SCORDATURA PART)]

Sun Propeller

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

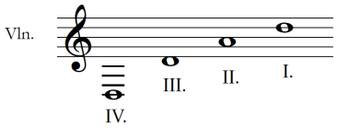
Poetics:

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).

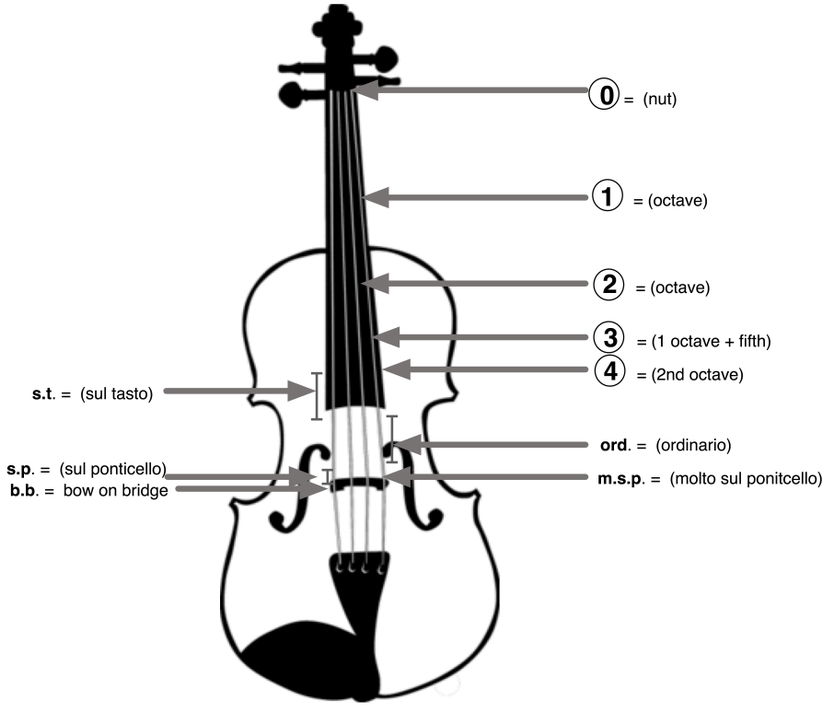
The idea for this work came while I was researching the music of Tuva, a culture in southern Siberia. Their music, particularly the practice of throat singing, is a vocal imitation of natural surroundings (the sounds of babbling brooks, wind resonating against mountains, etc.) and is used to pay respects 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
𝄬	¾-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
non vib.	non vibrato
vib.	vibrato
m. vib.	Molto vibrato
ord.	ord. vibrato
(fast bow)	use more bow than usual

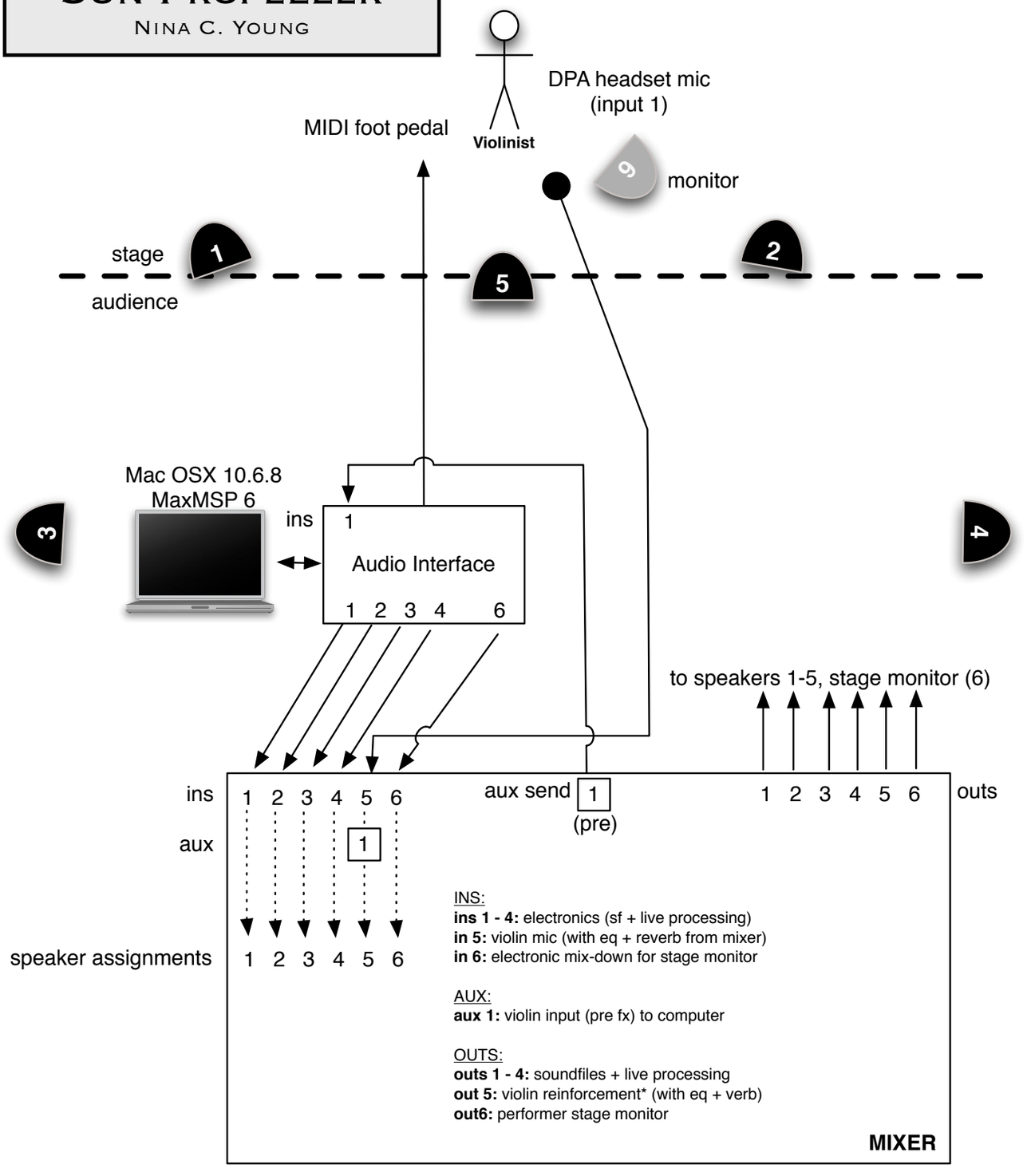
Electronics:

The electronics consist of live processing and triggered samples. The performer triggers events with a food pedal. The electronics consist of a drone based on the overtone spectrum of D (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. 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:
    - 5: quadraphonic + center channel for live sound reinforcement
- audiointerface:
    - minimum: 1 input, 5 outputs (6 if stage monitor is desired)
- stage monitor

Mixer connections for:
SUN PROPELLER
NINA C. YOUNG



*violin sound reinforcement may not be necessary

Score
Violin scordatura: D-D-A-D

Sun Propeller

FOR VIOLIN AND ELECTRONICS

Nina C. Young

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Scord.

Violin

Electr.

14

15

8

16

17

9

SF09
spdrone.1 gain-level increase

18

19

ord.

s.p.

m.s.p.

20

(fast bow)

21

22

10

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

accel.

♩ = 80

23

11

SF11
spgran.1 bin-shift

24

25

12

SF12
spgran.1 bin-shift

26 27

Scord.

Violin

Electr.

(fast bow)

28 29

Scord.

Violin

Electr.

13 spdrone.2 gain decrease

30 31 32

Scord.

Violin

Electr.

14 spdrone.2 gain increase

15 spdrone.2 gain increase

16 spdrone.2 gain increase

33 34 35

Scord.

Violin

Electr.

~ 4 sec.

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)

accel.

= 112

= 60
scratch tone

36

Scord.

Violin

Electr.

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

37 38 39 40 41 42 43

Scord.

Violin

Electr.

6 sec.

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 45 46 47 48 49

Scord.

Violin

Electr.

scratch tone ord. flautando ord. ord. non. vib. vib.

mf p p mp

22 SF22

50 51 52 53 54

Scord.

Violin

Electr.

p f p mf p f

55 56 57

Scord.

Violin

Electr.

ord. s.p. s.t. ~ 5 sec. ord. non. vib. vib.

mp n n p f p

23 SF23 spdrone.1 fade-out

24 spdrone.2 to spglide.1 to spgran.1

58 59 60

Scord.

Violin

Electr.

Freely, molto esspr.

mp

61 62 63

Scord.

Violin

Electr.

f p p p mf

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

64 65 66 67

Scord.

Violin

Electr.

s.p. m.s.p. s.p. m.s.p. ord. m.s.p.

f mf n f n mp n f

26 spdrone.1 gain decrease

68 69 70

Scord.

Violin

Electr.

ord. → s.p. → ord.

III. *m. vib.*

IV.

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

ord. → m.s.p. → ord.

non. vib. → *m. vib.* → *non. vib.*

ord. → m.s.p.

m. vib.

27 SF27
spdrone.1 gain increase

71

s.p. → ord.

ord.

accel. ♩ = 80

s.p.

pp

~x10

m.s.p. → b.b.

mf

72

~ 4 sec.

28 SF28
spdrone.1 decrease

♩ = 60

73

b.b. → s.p. → ord. → s.p. → b.b.

I. II.

p

74

~ 2 sec.

75

s.p. → ord. → s.p. → b.b.

n *p*

76

~ 4 sec.

29 SF29

77

b.b. → ord. → s.p. → ord. → b.b.

p

78

ord.
III.

mp

IV.

mf

79

3 ~ 25 sec.

p

3 → b.b.

n

~ 6 sec.

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

31 patch off