

Andrew Nathaniel McIntosh

Silver and White

for Bb trumpet, trombone, snare drum, viola, and cello

(2012)

PLAINSOUND MUSIC EDITION

notes

written in the spring of 2012 for Chris Kallmyer

Cent values are always written as deviations from equal temperament, except when in parenthesis (in which case they represent the melodic distance between two notes).

From measure 30 to the end the accidentals signify only approximate pitch distance from equal temperament and have no relation to their usual harmonic function. However, the ratios given and the cent values are correct.

The viola and cello should have heavy rubber practice mutes and the brass should have harmon mutes for the duration of the piece. The sustained snare rolls should be as quiet as humanly possible.

Duration: 7 minutes

The Extended Helmholtz-Ellis JI Pitch Notation

microtonal accidentals designed by Marc Sabat and Wolfgang von Schweinitz, 2004

3-LIMIT (PYTHAGOREAN) INTERVALS

♭♭ ♭ ♮ ♯ ×

FUNCTION OF THE ACCIDENTALS

notate untempered perfect fifths ($3/2$) $\approx \pm 702.0$ cents

perfect fifth (3/2); perfect fourth (4/3); major wholetone (9/8)

5-LIMIT (PTOLEMAIC) INTERVALS

♭̣ ♮̣ ♯̣ ♭̣̣ ♮̣̣ ♯̣̣

notate an alteration by one syntonic comma ($81/80$) $\approx \pm 21.5$ cents

major third (5/4); minor third (6/5); major sixth (5/3); minor sixth (8/5)

7-LIMIT (SEPTIMAL) INTERVALS

♭̣̣̣ ♮̣̣̣

notate an alteration by one septimal comma ($64/63$) $\approx \pm 27.3$ cents

natural seventh (7/4); septimal wholetone (8/7); septimal diminished fifth (7/5); septimal tritone (10/7); septimal minor third (7/6)

♭̣̣̣̣ ♮̣̣̣̣

notate an alteration by two septimal commas ($64/63$)·($64/63$) $\approx \pm 54.5$ cents

11-LIMIT (UNDECIMAL) INTERVALS

♭̣̣̣̣̣ ♮̣̣̣̣̣

notate an alteration by one undecimal quartertone ($33/32$) $\approx \pm 53.3$ cents

undecimal augmented fourth (11/8); undecimal diminished fifth (16/11)

13-LIMIT (TRIDECIMAL) INTERVALS

♭̣̣̣̣̣̣ ♮̣̣̣̣̣̣

notate an alteration by one tridecimal thirdbtone ($27/26$) $\approx \pm 65.3$ cents

tridecimal neutral sixth (13/8); tridecimal neutral third (16/13)

for Chris Kallmyer
silver and white

Andrew Nathaniel McIntosh

♩ = 72

Trumpet in B♭

Trombone

Percussion

Viola
with practice mute
9/7
13/10
10/7
+43.8 cents
-19.8
very soft, but with a focussed tone

Violoncello
with practice mute
7/3
8/7
4/3
+57.3 cents
+26.0 cents
very soft, but with a focussed tone

4

Tpt.

Tbn.

Perc.

Vla.
11/8 +64.6
4/3
9/5

Vc.
III
IV 6/5

7

Tpt.
with harmon mute (no stem)
very soft, but with a focussed tone
3/2
with harmon mute (no stem)

Tbn.
very soft, but with a focussed tone

Perc.

Vla.
6/5
4/3
13/10
+43.8

Vc.
11/6
11/4
15/8
7/4
+26.0
+57.3

10

Tpt.

Tbn.

Perc.

Vla.

Vc.

13

Tpt.

Tbn.

Perc.

Vla.

Vc.

16

Tpt.

Tbn.

Perc.

Vla.

Vc.

5/3

7/4

-17.8

16/7

-17.8

5/4

10/9

5/4

9/5

16/7

11/5

2/1

7/4

-39.3

-29.8

5/3

5/3

11/8

7/6

8/3

-92.6

-59.3

4/3

-59.3

5/3

11/8

4/3

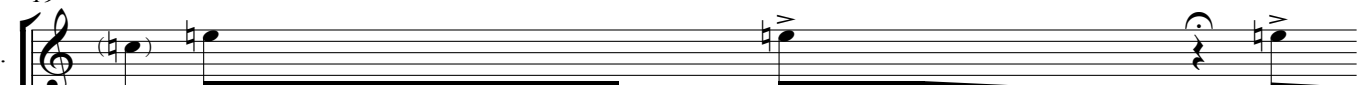
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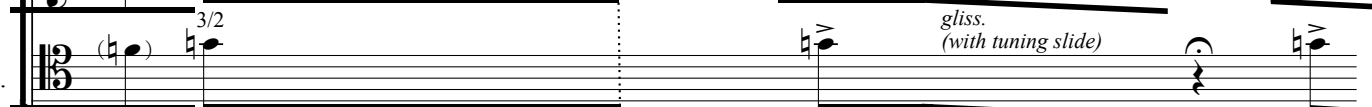
16/9

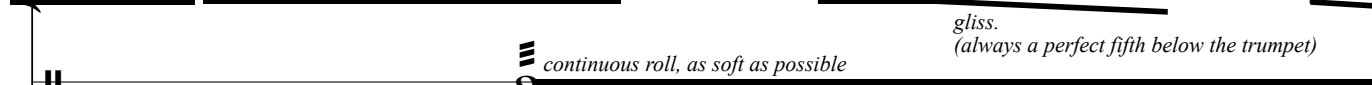
22/9


-45.3

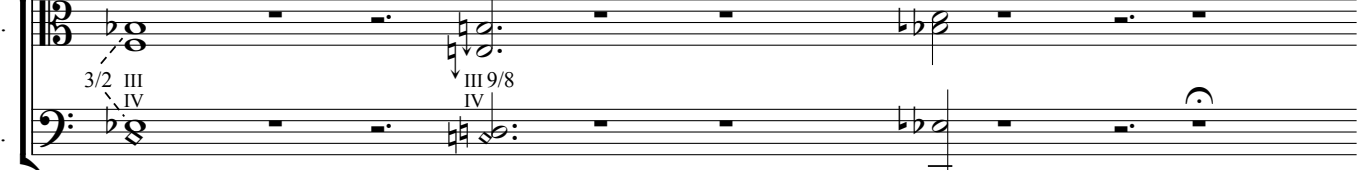
19

Tpt. 

Tbn. 

Perc. 

Vla. 

Vc. 

gliss. (with tuning slide)

gliss. (always a perfect fifth below the trumpet)

continuous roll, as soft as possible

pppp

4/3

3/2

3/2 III

IV

III 9/8

IV

22

Tpt. 

Tbn. 

Perc. 

Vla. 

Vc. 

(roll)

25

Tpt. 

Tbn. 

Perc. 

Vla. 

Vc. 

(roll)

49/48 (7/6 and 8/7 above cello F, 36 cents apart)

6/5

28

Tpt.

Tbn.

Perc.

Vla.

Vc.

(accidentals are approximate)

30 over vla: 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1)

Tpt.

Tbn.

Perc.

Vla.

Vc.

31 over vla: 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1)

Tpt.

Tbn.

Perc.

Vla.

Vc.

32 over vla: 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5)

Tpt. +60.8 +34.7 +12 -14.1 +63.4 +37.3 +14.8 -11.3 +66.2 +40.1 +17.6

Tbn.

Perc.

Vla. -4.0 -52.8 -1.6 -50.4 +0.8 -48.0

Vc. +11.5 -37.3 +13.9 -34.9 +16.3 -32.5

33 over vla: 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5)

Tpt. +58.8 +32.7 +10 -16.1 +61.4 +35.3 +12.8 -13.3 +64.2 +38.1 +15.6

Tbn.

Perc.

Vla. -6.0 -54.8 -3.6 -52.4 -1.2 -50.0

Vc. +9.5 -39.3 +11.9 -36.9 +14.3 -34.5

34 over vla: 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5)

Tpt. +60.8 +34.7 +12 -14.1 +63.4 +37.3 +14.8 -11.3 +66.2 +40.1 +17.6

Tbn.

Perc.

Vla. -4.0 -52.8 -1.6 -50.4 +0.8 -48.0

Vc. +11.5 -37.3 +13.9 -34.9 +16.3 -32.5

35 over vla: 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5

Tpt. +60.8 +34.7 +12 -14.1 +63.4 +37.3 +14.8 -11.3 +66.2 +40.1 +17.6

Tbn.

Perc. **pppp** (roll)

Vla. -4.0 -52.8 -1.6 -50.4 +0.8 -48.0

Vc. +11.5 -37.3 +13.9 -34.9 +16.3 -32.5

6/5 7/6 6/5 7/6 6/5 7/6 6/5 7/6 6/5 7/6 6/5

36 over vla: 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5 (-26.1) 13/6 (-22.5) 11/5

Tpt. +60.8 +34.7 +12 -14.1 +63.4 +37.3 +14.8 -11.3 +66.2 +40.1 +17.6

Tbn.

Perc. (roll)

Vla. -4.0 -52.8 -1.6 -50.4 +0.8 -48.0

Vc. +11.5 -37.3 +13.9 -34.9 +16.3 -32.5

6/5 7/6 6/5 7/6 6/5 7/6 6/5 7/6 6/5 7/6 6/5

37

Tpt.

Tbn.

Perc. (roll) 15-20"

Vla.

Vc.

38

Tpt.

Tbn.

Perc.

Vla.

Vc.

mp +58.8 +32.7 +10 -16.1 +61.4 +35.3 +12.8 -13.3 +64.2 +38.1 +15.6

parallel 3/2

mp +56.8 +30.7 +8 -18.1 +59.4 +33.3 +10.8 -15.3 +62.2 +36.1 +13.6