

Score

Connor Simpson

Tuba Quartet (ETTT) and live electronics

Scordatura

4'10"

2021

Mere Fly Press

Scordatura

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2022

4 minutes and 10 seconds

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Mere Fly Press (ASCAP)

Program Notes

Scordatura creates a microtonal soundscape through the detuning of the ensemble's valves. The work explores the physical phenomena of beating as well as harmonies found in just intonation and 24 tone equal temperament. Each tubist uses live electronics to provide themselves with tuning pitches throughout the work.

Performance Notes

The work may be performed with more than four tubas but must be performed with an equal number of euphoniums, F tubas, C tubas, and Bb tubas. Live electronics are to be used by the performers to assist in tuning. Each performer will need a laptop installed with Pure Data and headphones.

Pure Data

To download Pure Data performers must access the website

<https://puredata.info/downloads> and install the newest Vanilla copy of Pure Data based on their computers operating system. Each performer must then also download a copy of the Pure Data patch specific to their part available at the request of the composer at csimpsoncomposer@gmail.com.

Tuning

Each performer is to tune their fourth valve down a quarter tone and tune the rest of their valves in accordance with 12 tone equal temperament. Please tune to the pitches specified below.

Euphonium -Tune the main slide precisely to Bb3 or 233.08Hz

-Tune the 2nd valve slide precisely to A3 or 220.00Hz

-Tune the 1st valve slide precisely to Ab3 or 207.65Hz

-Tune the 3rd valve to precisely G3 or 196.00Hz

-Tune the 4th valve to F3 -50cents or 169.64Hz

F Tuba -Tune the main slide precisely to F3 or 174.61Hz

-Tune the 2nd valve slide precisely to E3 or 164.81Hz

-Tune the 1st valve slide precisely to Eb3 or 155.56Hz

-Tune the 3rd valve to precisely D3 or 146.83Hz

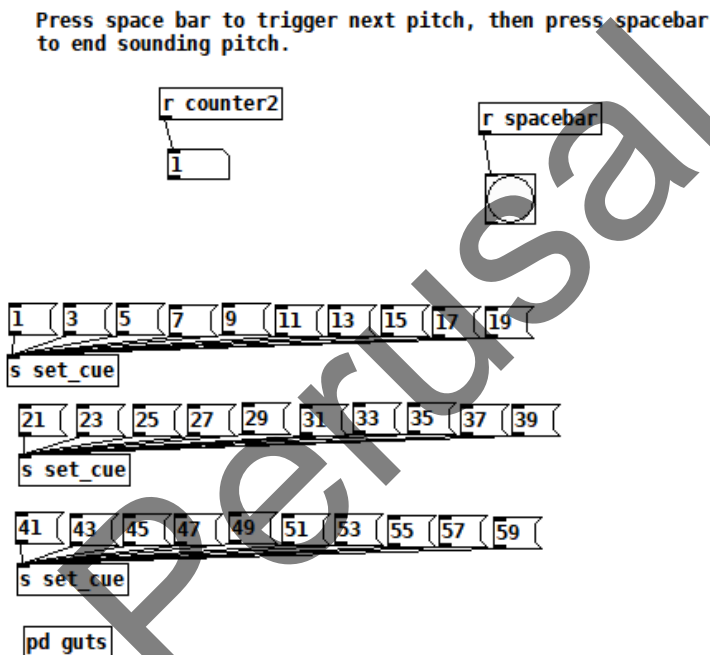
-Tune the 4th valve to C3 -50cents or 127.09Hz

C Tuba -Tune the main slide precisely to C4 or 261.63Hz
 -Tune the 2nd valve slide precisely to B3 or 246.94Hz
 -Tune the 1st valve slide precisely to Bb3 or 233.08Hz
 -Tune the 3rd valve to precisely A3 or 220.00Hz
 -Tune the 4th valve to G3 -50cents or 190.42

Bb Tuba - Tune the main slide precisely to Bb3 or 233.08Hz
 -Tune the 2nd valve slide precisely to A3 or 220.00Hz
 -Tune the 1st valve slide precisely to Ab3 or 207.65Hz
 -Tune the 3rd valve to precisely G3 or 196.00Hz
 -Tune the 4th valve to F3 -50cents or 169.64Hz

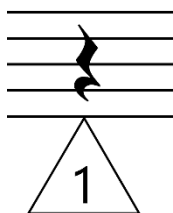
Navigating the Patch

Each Performer's patch will appear as below.

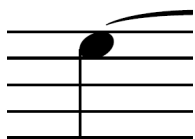


The patch is used to provide the performer with tuning pitches throughout the work. The spacebar, a foot pedal, or a page-turning pedal may be used to proceed through the patch. The counter box in the upper left side indicates the next electronic cue to be executed. Odd numbers indicate a pitch will be sounded, whereas even numbers cutoff the sounding pitch. The circle in the upper right indicates that the patch is receiving input from the spacebar, foot pedal etc. The list of numbers in the lower section of the patch may be clicked to skip to directly that cue. The backspace key may also be used to skip back to the beginning of the piece. Please do not hesitate to contact me at csimpsoncomposer@gmail.com regarding any questions about the patch or piece.

The Score

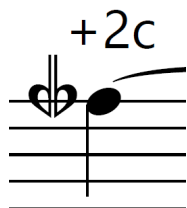


Triangular cue markings indicate approximately when to trigger the next cue. Precise rhythm of cues is not important and may be left to the discretion of the performer.



Fingerings are provided below every pitch within the piece. This fingering is to be used in order to achieve optimal intonation and tone for the desired frequency.

1+3



The notated pitches of the work are rounded to their nearest 24 tone equal temperament neighbor and offset from that pitch is given in cents above the note. The accidentals used for quartertones are shown below.



Quarter sharp



Three quarter sharp



Quarter flat



Three quarter flat

Scordatura

Adagio (♩ = 72)

Musical score for measures 1-4. The score is in 4/4 time with a tempo of Adagio (♩ = 72). The instruments are Euphonium, Tuba F, Tuba C, and Tuba Bb. Fingerings are indicated by numbers 1-5 and combinations like 1+2, 1+3, 2+3. Trill markings include -14c, +2c, and +1c. A large watermark 'For Perusal Only' is overlaid on the score.

Musical score for measures 5-8. The score continues from the previous system. Fingerings include 2, 6, 7, 1+2+3, 4, 5, 1+2, 4, 5, 1+3, 4, 5, 1+2, 6, 7. Trill markings include -14c and +2c. A large watermark 'For Perusal Only' is overlaid on the score.

9

Euph.

Tuba F

Tuba C

Tuba Bb

+2c

1+3

8

9

6

7

0

8

9

2+4

6

7

2+3

+19c

1+3

8

9

0

+2c

13

Euph.

Tuba F

Tuba C

Tuba Bb

10

11

2+4

12

13

10

11

3+4

8

9

4

10

+1c

10

11

0

+2c

12

13

17

Euph.

Tuba F

Tuba C

Tuba Bb

4

14

15

1+2

+19c

12

13

4

+4c

11

4

-14c

12

13

+4c

4

14

15

1+2

21

Euph.

Tuba F

Tuba C

Tuba Bb

16

17

1+2+3+4

18

+19c

15

1+2+3

16

17

2+3+4

-14c

0

14

15

2

16

17

1+2+3+4

-9c

16

17

1+2

25

Euph. ^{+2c}
19 2+3+4 20 21

Tuba F
18 19 2+3+4

Tuba C ^{+4c}
18 19 2+3 20 21

Tuba Bb
18 19 2+4 20 21

29

Euph. ^{+2c}
1+4 22 23

Tuba F ^{-14c}
20 21 1+3+4 22 23 1+2+3+4

Tuba C ^{-14c}
1+4 22 23 1+2+4

Tuba Bb ^{+2c}
2 22 23 1+4 24 25 1+2+3

33

Euph. $+2c$ $+19c$
1+2+3 24 25 1+2+4 26

Tuba F $-14c$ $+1c$
24 25 2+3+4 26 27 1+2+3+4

Tuba C $+2c$
24 25 1+2+4 26 27

Tuba Bb $+2c$
26 27 1+2+3

37

Euph. $+2c$ $-14c$
27 2 28 29 2

Tuba F $+4c$
28 29 1+2+3 30 31

Tuba C $+2c$
1 28 29

Tuba Bb $+2c$
28 29 3+4 30

41

Euph.

Tuba F

Tuba C

Tuba Bb

This system contains measures 41 through 44. The Euphonium part starts with a slur over measures 41 and 42, then plays notes in measures 43 and 44. The Tuba F part has a slur over measures 41 and 42, then plays notes in measures 43 and 44. The Tuba C part has a slur over measures 41 and 42, then plays notes in measures 43 and 44. The Tuba Bb part has a slur over measures 41 and 42, then plays notes in measures 43 and 44. Fingerings and techniques are indicated by numbers and letters in triangles and above notes.

30 31 3+4 32 33

-14c 1+2 32 33 1+2

+2c 1+3 30 31 1+3

-9c 31 2+3+4 32 33 1+2

+2c

45

Euph.

Tuba F

Tuba C

Tuba Bb

This system contains measures 45 through 48. The Euphonium part starts with a slur over measures 45 and 46, then plays notes in measures 47 and 48. The Tuba F part has a slur over measures 45 and 46, then plays notes in measures 47 and 48. The Tuba C part has a slur over measures 45 and 46, then plays notes in measures 47 and 48. The Tuba Bb part has a slur over measures 45 and 46, then plays notes in measures 47 and 48. Fingerings and techniques are indicated by numbers and letters in triangles and above notes.

-14c 1+2 34 35 3+4

34 35 0

+1c 32 33 4 34 35

34 35 2+4

49

Euph.

Tuba F

Tuba C

Tuba Bb

+19c

36 37 38

1+2

36 37 38 39

1+2+3

+2c

-14c

1+3 2

36 37 38 39

1+2

+1c

53

Euph.

Tuba F

Tuba C

Tuba Bb

-14c

+19c

39 40 41

2

1+2+3+4

2

38 39 40 41

1+2

1+2+3+4

-9c

40 41

1+2

57

Euph.

Tuba F

Tuba C

Tuba Bb

This block contains the musical notation for measures 57 through 60. It features four staves: Euphonium (Euph.), Tuba F, Tuba C, and Tuba Bb. The Euphonium staff has a treble clef and a key signature of one flat. The tuba staves have bass clefs and a key signature of one flat. The notation includes various rhythmic values, slurs, and articulation marks. Fingerings are indicated by numbers 42, 43, and 44 in triangles. Breath marks are labeled as +2c, -14c, and +4c. Measure groupings are shown as 2+3+4, 2+3, and 2+4.

61

Euph.

Tuba F

Tuba C

Tuba Bb

This block contains the musical notation for measures 61 through 64. It features four staves: Euphonium (Euph.), Tuba F, Tuba C, and Tuba Bb. The Euphonium staff has a treble clef and a key signature of one flat. The tuba staves have bass clefs and a key signature of one flat. The notation includes various rhythmic values, slurs, and articulation marks. Fingerings are indicated by numbers 44, 45, 46, and 47 in triangles. Breath marks are labeled as +2c and -14c. Measure groupings are shown as 1+4, 1+3+4, and 1+4.

65 +2c

Euph. 1+2+3 48 49 +19c 1+2+4

Tuba F 46 47 -14c 1+2+3+4 48 49

Tuba C 46 47 +2c 1+2+4 48 49 +2c 1+2+4 50

Tuba Bb 48 49 +2c 1+2+3

69 +2c

Euph. 50 51 2

Tuba F -14c 2+3+4 50 51

Tuba C 51 +2c 1 52 53

Tuba Bb 50 51 +2c 1+2+3 52 53 +2c 0

73

Euph.

Tuba F

Tuba C

Tuba Bb

This block contains the musical score for measures 73 through 76. It features four staves: Euphonium (Euph.), Tuba F, Tuba C, and Tuba Bb. The Euph. staff starts with a treble clef and a key signature of one flat. The Tuba F staff has a bass clef and a key signature of one flat. The Tuba C staff has a bass clef and a key signature of one flat. The Tuba Bb staff has a bass clef and a key signature of two flats. The score includes various musical notations such as notes, rests, and slurs. Fingerings are indicated by numbers 1-4. Circled numbers (52, 53, 54, 55) likely refer to specific notes or techniques. Performance instructions like '+1c', '+19c', '+2c', '-14c', and '+4c' are present. Measure numbers 73, 74, 75, and 76 are indicated at the top of each measure.

77

Euph.

Tuba F

Tuba C

Tuba Bb

This block contains the musical score for measures 77 through 80. It features four staves: Euphonium (Euph.), Tuba F, Tuba C, and Tuba Bb. The Euph. staff starts with a treble clef and a key signature of one flat. The Tuba F staff has a bass clef and a key signature of one flat. The Tuba C staff has a bass clef and a key signature of one flat. The Tuba Bb staff has a bass clef and a key signature of two flats. The score includes various musical notations such as notes, rests, and slurs. Fingerings are indicated by numbers 1-4. Circled numbers (56, 57, 58, 59) likely refer to specific notes or techniques. Performance instructions like '-14c' and '+2c' are present. Measure numbers 77, 78, 79, and 80 are indicated at the top of each measure.

81

Euph.

Tuba F

Tuba C

Tuba Bb

59

2+4

59

3+4

+1c

4

60

60

60

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