

Wolfgang von Schweinitz

# Plainsound Lullaby

for clarinet, trombone, violoncello  
and piano with optional amplification

op. 60

2015

*for gnarwhallaby*

*Brian Walsh – Matt Barbier – Derek Stein – Richard Valitutto*

– STUDY SCORE –

PLAINSOUND MUSIC EDITION

This score is licensed under a Creative Commons  
Attribution-NonCommercial-NoDerivs 3.0 Unported License

# NOTES

## TUNING INSTRUCTIONS

*The piano is tuned in standard Equal Temperament.*

*The B-flat clarinet is tuned by matching the pitch produced by the standard fingering for the low G in the chalumeau register to the piano sound of F-2.*

*The trombone is tuned by adjusting position 1 to the piano sound of B-flat-2 and by pulling out the trigger valve slide far enough to provide a C-quarter-flat in position 7, i.e. by matching its 11<sup>th</sup> harmonic on F-4 to the 6<sup>th</sup> harmonic of B-flat (see measures 108-110 of the score).*

*The violoncello is tuned as follows: First, the C-string is tuned to the piano sound of F-2 by matching the double octave harmonic (C-4) to the 3<sup>rd</sup> harmonic of the piano's F-2 string, with the pianist touching the node at 1/3 of the string length to produce a multi-phonic sound aggregate on C-4. Next, the G-string is tuned a perfect fifth above C, matching the 4<sup>th</sup> and 6<sup>th</sup> partial at G-4. Then the D-string is tuned a comma-diminished fifth (with a frequency ratio of 40/27) above G; this can be accomplished by stopping the G-string at A-2, tuned as a pure major sixth above C (matching the partials at E-4) and then tuning the D-string as a perfect fourth above this A-2 (matching the partials at A-4). Finally the A-string is tuned as a perfect fifth above D; its pitch will be a pure major tenth above the piano's F-2. – In a solo rehearsal, the phrase at rehearsal mark 2 may be used to check this comma scordatura.*

## PIANO PERFORMANCE TECHNIQUE

*The piano part features a number of precisely defined multi-phonic sound aggregates, or chords of natural harmonics, generated on the bass strings of the piano by an accentuated touch of the key (right hand) while briefly touching the strings at the specified nodes with a finger of the left hand, employing an appropriate amount of pressure to suppress the fundamental frequency and get a rich and freely ringing sound that contains all the partials notated in the score. Most sound aggregates featuring harmonic number 16 (e.g. in measures 5, 21, 37 and 47) are produced with an enhanced sforzato touch by simultaneously stopping two nodes on the string (please see page 3 of the preface for details).*

*To secure the production of the sound aggregates within the musical context, all the nodes that need to be touched must be marked on the strings with thin colored threads of wool or cotton. The specified nodes can be precisely located by ear, always listening to the “upper voice” within the compound sounds (i.e. to the highest pitch notated with a large note in the score). List of the nodes that need to be marked on the strings:*

<u>C-2</u>	is marked at	<u>F-1</u>	is marked at
3/16	of the string length, as in measure 37 (near the damper)	3/16	see measure 21
3/15 = 1/5	of the string length, as in measure 37 (on the 3 <sup>rd</sup> beat)	3/15	see measure 21
3/14	of the string length, as in measure 38	3/14	see measure 22
3/13	of the string length, as in measure 39	3/13	see measure 23
3/12 = 1/4	of the string length, as in measure 40	3/12	see measure 24
5/16	of the string length, as in measure 37	3/11	see measure 25
		2/7	see measure 4
<u>B-flat-1</u> is marked at	<u>E-flat-1</u> is marked at	3/10	see measure 26
3/16 see measure 5	3/9 = 1/3 see measure 10	5/16	see measure 21, 27
3/15 see measure 5		3/9	see measure 28
3/14 see measure 6	<u>C-1</u> is marked at		
3/13 see measure 7	3/15 = 1/5 see measure 46	<u>B-flat-0</u> is marked at	
3/12 see measure 8	3/12 = 1/4 see measure 40	1/4	see measure 6
3/11 see measure 9	2/7 see measure 42	1/3	see measure 22
3/10 see measure 10	3/9 = 1/3 see measure 41		
5/16 see measure 5			

*F-2 must be marked at 1/3 of the string length in order to facilitate the tuning procedure for the violoncello's C string. In case the nodes at 3/16 are located below the dampers and cannot be used to generate the sound aggregates featuring harmonic 16, the strings for C-2, B-flat-1 and F-1 may also need to be marked further back (somewhat behind 1/3) at 3/8 of the string length (please see page 3 of the preface for details).*

*The nodes that need to be touched on the strings and the generated sounding pitches are notated (in the manner used for strings) with a set of microtonal accidentals called “Extended Helmholtz-Ellis II Pitch Notation”, using the equal-tempered F as the reference pitch in this score (see legend next page).*

## PIANO AMPLIFICATION

*A subtle amplification of the piano sounds is very desirable, especially for performances in large or medium-sized halls, with a microphone positioned close-up above the bass strings, a speaker positioned near the piano in the middle of the stage, if possible.*

PERFORMANCE DURATION    *circa 10 minutes*

# ACCIDENTALS

*for microtonal just intonation*

## EXTENDED HELMHOLTZ-ELLIS JI PITCH NOTATION

*The exact intonation of each pitch is written out by means of the following harmonically defined accidentals:*

$\flat\flat$   $\flat$   $\natural$   $\sharp$   $\times$  *Pythagorean series of non-tempered perfect fifths*  
(... c g d a e ...)

$\flat\downarrow$   $\natural\downarrow$   $\sharp\downarrow$   $\times\downarrow$   $\flat\uparrow$   $\natural\uparrow$   $\sharp\uparrow$  *lowers / raises the pitch by a syntonic comma*  
 $81 : 80 = \text{circa } 21.5 \text{ cents}$

$\flat\downarrow\downarrow$   $\natural\downarrow\downarrow$   $\sharp\downarrow\downarrow$   $\times\downarrow\downarrow$   $\flat\uparrow\uparrow$   $\natural\uparrow\uparrow$   $\sharp\uparrow\uparrow$  *lowers / raises the pitch by two syntonic commas*  
**circa 43 cents**

$\flat\lrcorner$   $\natural\lrcorner$  *lowers / raises the pitch by a septimal comma*  
 $64 : 63 = \text{circa } 27.3 \text{ cents}$

$\flat\lrcorner\lrcorner$   $\natural\lrcorner\lrcorner$  *lowers / raises the pitch by two septimal commas*  
**circa 54.5 cents**

$\flat\lrcorner\lrcorner\lrcorner$   $\natural\lrcorner\lrcorner\lrcorner$  *raises / lowers the pitch by an 11-limit quarter-tone*  
 $33 : 32 = \text{circa } 53.3 \text{ cents}$

$\flat\lrcorner\lrcorner\lrcorner\lrcorner$   $\natural\lrcorner\lrcorner\lrcorner\lrcorner$  *lowers / raises the pitch by a 13-limit third-tone*  
 $27 : 26 = \text{circa } 65.3 \text{ cents}$

$\flat\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner$   $\natural\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner$  *lowers / raises the pitch by the 17-limit schisma*  
 $256 : 255 = \text{circa } 6.8 \text{ cents}$

$\flat\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner$   $\natural\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner$  *raises / lowers the pitch by the 19-limit schisma*  
 $513 : 512 = \text{circa } 3.4 \text{ cents}$

$\flat\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner$   $\natural\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner\lrcorner$  *raises / lowers the pitch by the 23-limit comma*  
 $736 : 729 = \text{circa } 16.5 \text{ cents}$

*These 'Helmholtz-Ellis' accidentals for just intonation were designed in collaboration with Marc Sabat.*

*The attached arrows for pitch alterations by a syntonic comma are transcriptions of the notation used by Hermann von Helmholtz in his book "Die Lehre von den Tonempfindungen als physiologische Grundlage für die Theorie der Musik" (1863). – The annotated English translation "On the Sensations of Tone as a Physiological Basis for the Theory of Music" (published 1875/1885) was made by Alexander J. Ellis, who refined the definition of pitch within the 12-tone system of Equal Temperament by introducing a division of the octave into 1200 cents. – The accidental sign denoting an alteration by a septimal comma was devised by Giuseppe Tartini (1692-1770), the composer, violinist and researcher who investigated the difference tones created by double-stops.*

## PITCH BEND INFORMATION FOR THE CLARINET

*In addition to the harmonic definition of a pitch by means of its accidental(s), it is also possible to specify its absolute pitch-height as a cents-deviation from the respectively indicated chromatic pitch in the standard 12-tone system of Equal Temperament. These pitch bend numbers are included in the clarinet part, so that the suggested microtonal fingerings can be tested with a tuning device in a solo rehearsal. – Because of the inherent inharmonicities of the piano strings, however, the higher partials within the multi-phonic piano sounds (which are to be matched by the clarinet) are mostly somewhat sharp; and therefore some of the notes in the clarinet part must be played a little bit higher than suggested by these theoretical pitch bend numbers.*

The available sound aggregates  
featuring harmonic number 16

touch nodes:  $\frac{5}{16}$   $\frac{3}{8}$   $\frac{5}{16}$   $\frac{5}{16}$   $\frac{3}{8}$   $\frac{5}{16}$   $\frac{5}{16}$   $\frac{5}{16}$   $\frac{3}{8}$   $\frac{5}{16}$   
 $\frac{3}{16}$   $\frac{2}{8}$   $\frac{4}{16}$   $\frac{3}{16}$   $\frac{2}{8}$   $\frac{4}{16}$

used only  
in measures  
27, 35, 75, 83,  
123 and 131

The sound aggregates featuring harmonic 16 in measures 5, 13, 21, 29, 37, 41, 43 and 47 (and also in same respective measures of stanzas 2 and 3) are produced by simultaneously touching two nodes on the string with the thumb and the third or fourth finger of the left hand. - If the nodes at  $\frac{3}{16}$  of the string length are not located below the dampers, the sound aggregates can be played by touching the nodes at  $\frac{3}{16}$  &  $\frac{5}{16}$ , as notated in the score. Otherwise they can be replaced by the sound aggregates number 2, 5 and 9 produced by touching the nodes at  $\frac{2}{8}$  &  $\frac{3}{8}$  further back inside the piano. In case it is impossible to touch the string at these nodes, then the sound aggregates produced at nodes  $\frac{4}{16}$  &  $\frac{5}{16}$  should be used.

# Plainsound Lullaby

for clarinet, trombone, violoncello and piano with optional amplification

Wolfgang von Schweinitz  
op. 60 (2015)

Adagio (♩ ca. 48)

1

Clarinet in B-flat

Notation at sounding pitch

Note for Clarinet, Trombone, Violoncello and Piano: Quavers (eighth notes) preceding a rest may be sustained a little bit longer ad libitum.

Trombone

Violoncello

con sord. (tourte) scordatura (see preface)  $\frac{9}{2}$  sempre non vibrato  $\frac{5}{4}$  Grace notes always go before the beat.  $\frac{5}{4}$   $\frac{5}{1}$

sempre molto piano

Adagio (♩ ca. 48) gently rocking with emphasized downbeats and soft attacks on the open strings

sustain sounding pitches

piano

cresc.

touch nodes:  $\frac{3}{12}$   $\frac{3}{12}$   $\frac{3}{9}$  of string length  $\frac{2}{7}$   $\frac{5}{16}$   $\frac{3}{16}$   $\frac{3}{12}$   $\frac{3}{15}$   $\frac{3}{14}$   $\frac{3}{12}$

\*) Two alternative double stops for generating the sound aggregates featuring harmonic 16 are provided in the preface.

7

M = non-tempered multi-phonic sound (ad lib.) with a subtle enhancement of the upper partials, produced by embouchure (no squeaks, please!)

ritenuto a tempo

con sord. (metal)

sempre molto piano

$\frac{9}{4}$   $\frac{5}{4}$   $\frac{7}{4}$   $\frac{5}{4}$   $\frac{9}{4}$  (♯ = change position)

ritenuto a tempo

cresc.

3/13 \* Ped. 3/12 3/12 3/12 \* Ped. 3/11 3/12 3/10 3/9 3/10 \* Ped. 3/12 2/7

2

13

$\frac{16}{15}$  (-112c)  $\frac{15}{14}$  (-119c)  $\frac{14}{13}$  (-128c)  $\frac{13}{12}$  (-139c)  $\frac{12}{11}$  (-151c)  $\frac{11}{10}$  (-165c)

ritenuto

$\frac{5}{3}$   $\frac{6}{5}$   $\frac{4}{3}$   $\frac{6}{5}$

ritenuto

cresc.

$\frac{5}{16}$   $\frac{3}{12}$   $\frac{3}{15}$  \* Ped.  $\frac{3}{14}$   $\frac{3}{12}$   $\frac{3}{13}$  \* Ped.  $\frac{3}{12}$   $\frac{3}{12}$   $\frac{3}{12}$  \* Ped.  $\frac{3}{11}$   $\frac{3}{12}$   $\frac{3}{10}$   $\frac{3}{9}$   $\frac{3}{10}$  \*

19 *a tempo* M 3 *M* 21:20 (-84c) 15:14 (-119c) 14:13 (-128c) 13:12 (-139c) 12:11 (-151c)

4:3 (-498c) *slide page* *9/2* *(3/2) (4/3)* *sing diamond notes (ad lib.)*

4/3 5/2 *a tempo* 9/2 *sf* *cresc.* *piano*

*Red.* 3/12 \* 3/12 \* *ritenuto* *a tempo* *Red.* 5/16 3/15 3/14 3/9 3/13 3/12 3/12 \*

25 *M* 4 *M* 15:14 (-119c)

5:4 (-386c) *slide page* *5/2 below clar.*

(11/6) (5/3) (3/2) (4/3) (7/6) *9/2* 10/3 9/2 *slide page*

*ritenuto* *a tempo* *cresc.* *cresc.* *sf* *cresc.*

*Red.* 3/11 *Red.* 3/10 3/12 5/16 3/9 \* *Red.* 5/16 3/15 3/14 3/9 \*

31 *M* *M* 22:21 (-81c) 21:20 (-84c) *slide page*

5/4 below clarinet 5/4 5/4 5/4 5/2 below clarinet

*ritenuto* *a tempo* *cresc.* *cresc.*

*piano* 3/13 3/12 3/12 \* 3/11 *Red.* 3/10 3/12 5/16 3/9 \*

5 37 *ritenuto*

16:15 (-112c) 15:14 (-119c) 16:15 (-112c) 14:13 (-128c)

M M

8<sup>va</sup>

III 5/2 1-

↑1 (+49c) -1

*sf* *cresc.* *sf* *cresc.*

Ped. \* Ped.

5/16 3/15 3/14 3/13 3/9 3/12 3/12 5/16 3/9 3/15 2/7 3/14 3/13

43 *a tempo* *ritardando*

16:15 (-112c) 9:8 (-204c) 10:9 (-182c) 16:15 (-112c) 24:23 (-74c) 46:45 (-38c)

M M M M

3:4 (+498c) slide page

5/2 5/2 5/3 5/2 IV multi-phonic 12+7+5 5/2 5/2

-1- -1

*a tempo* *ritardando*

*sf* *cresc.* *sf*

Ped. \* Ped.

5/16 3/12 3/15 3/15 \* 3/12 3/12 3/15 3/9 5/16 3/14 3/15 \*

7 49 *a tempo* 8

slide page

3:4 (+498c)

slide page

4/3 5/2 7/4 8/5 15:14 (-119c) 7/5 14:13 (-128c)

03- 1- 03- 01<sup>2</sup> 5/4 04<sup>3</sup> 7/5 04<sup>1</sup>

*a tempo*

*cresc.* *cresc.*

Ped. \* Ped. \* Ped.

3/12 3/12 3/9 2/7 5/16 3/12 3/15 3/14 3/12

sing B-flat ad lib.

*ritenuto*

*a tempo*

M

55 *slide page*

*sing B-flat ad lib.*

*sing B-flat*

*ritenuto*

*a tempo*

*cresc.*

*Ped.*

3/13 \* *Ped.* 3/12 3/12 3/12 3/11 3/12 3/10 3/9 3/10 3/12 \* *Ped.* 2/7 \* *Ped.*

9

61

*sing F ad lib.*

*sing F ad lib.*

*ritenuto*

*cresc.*

*Ped.*

5/1 12/5 7/1 below clar. 5/2 13/2 16/1 21/2 75/8 5/2 11/2 5/2 5/2 5/2 5/2

*cresc.*

*Ped.*

5/16 3/12 3/15 3/14 3/12 3/13 \* *Ped.* 3/12 3/12 3/12 \* *Ped.* 3/12 3/10 3/9 3/10

10

67

*a tempo*

*sing F ad lib.*

*sing F ad lib.*

*a tempo*

*cresc.*

*piano*

*Ped.*

3/12 3/12 \* 5/16 3/15 3/14 3/9 3/13 3/12 3/12



73 *slide page*

*ritenuto* *a tempo* **11** 16:15 (-112c) 15:14 (-119c) 28:27 (-63c) 27:26 (-65c)

5:4 (-386c) 4:5 (+386c) *slide page*

45:44 (-39c) 11/6 11:10 (-165c) 5/3 8/5 *slide page*

-1- *sing F ad lib.* *ritenuto* *a tempo*

*cresc.* *cresc.* *sf* *cresc.*

3/11 *Red.* 3/10 3/12 5/16 3/9 \* *Red.* 5/16 3/15 3/14 3/9

79 26:25 (-68c) 25:24 (-71c) 16:15 (-112c) 45:44 (-39c) 22:21 (-81c) 21:20 (-84c) **M** *ritenuto* *a tempo*

-59 -28 -10 -29 -14 +2 -12

*ritenuto* *a tempo*

*cresc.* *cresc.*

*piano* \* *Red.* \*

3/13 3/12 3/12 \* 3/11 *Red.* 3/10 3/12 5/16 3/9 \*

**12** **13** 16:15 (-112c) 15:14 (-119c) 14:13 (-128c) 39:38 (-45c)

4:3 (-498c) *ritenuto*

26:25 (-68c) 25:24 (-71c) *ritenuto*

1 (+27c) 5/2 over trb. *ritenuto*

*sf* *cresc.* *sf* *cresc.*

*Red.* \* *Red.* 3/13 3/9 3/12 3/12 5/16 3/9 3/15 2/7 3/14 \*

5/16 3/16 3/15 3/14 3/13 3/9 3/12 3/12 5/16 3/9 3/15 2/7 3/14 \*

*a tempo* *ritardando*

19:18 (-94c) 16:15 (-112c)

91

3:4 (+498c) 5:4 (-386c) 16:15 (-112c)

8<sup>va</sup> 8<sup>va</sup> 8<sup>va</sup> 8<sup>va</sup> 8<sup>va</sup>

5/4 5/1 5/4 5/4

più vicino al pont.

*a tempo* *ritardando*

Ped. 5/16 3/12 3/15 3/15 3/12 3/12 3/15 3/9 5/16 3/14 3/15

*a tempo*

21:20 (-84c)

97

9:16 (+996c) 3:2 (-702c)

8<sup>va</sup> 8<sup>va</sup> 8<sup>va</sup>

4/3 5/2 7/4 8/5 5/4 15:14 (-119c) 7/5 14:13 (-128c)

ord. sing B-flat ad lib.

*a tempo*

cresc. cresc.

Ped. 3/12 3/12 3/9 2/7 5/16 3/12 3/15 3/14 3/12

*ritenuto* *a tempo*

10:9 (-182c) 11:10 (-165c)

13:12 (-139c) 6/5 5/4 12:11 (-151c) 11:10 (-165c) 3/2 10:9 (-182c) 5/3

11/6 11/6

sing B-flat ad lib. sing B-flat

*ritenuto* *a tempo*

cresc.

Ped. 3/13 3/12 3/12 3/12 3/11 3/12 3/10 3/9 3/10 3/12 2/7

**16**

109

*ritenuto*

15:14 (-119c)

6:11 (+1049c)

5:4 (-386c)

11:10 (-165c)

slide page

*ritenuto*

*cresc.*

*cresc.*

5/16 3/12 3/15 3/14 3/12 3/13 \* Ped. 3/12 3/12 3/12 3/11 3/12 3/10 3/9 3/10

*a tempo*

**17**

115

slide page

13:12 (-139c) 16:15 (-112c) 45:44 (-39c)

8:11 (+551c) 7:6 (-267c) 8:7 (-231c)

high position:  
IV III II IV II I II 7/5 14:13 (-128c) 13/10 13:12 (-139c) 6/5 1

*a tempo*

*sing F ad lib.*

*sing F ad lib.*

*cresc.*

*piano*

3/12 3/12 \* 5/16 3/15 3/14 3/9 3/13 3/12 3/12

*ritenuto*

*a tempo*

**18**

121

11:10 (-165c)

15:14 (-119c) 14:19 (-529c) 19:13 (-657c)

4:5 5/2 5/2 4:3 (-498c) 7/1 19/2

*ritenuto*

*a tempo*

*cresc.*

*cresc.*

*cresc.*

3/11 Ped. 3/10 3/12 5/16 3/9 \* 5/16 3/15 3/14 3/9

127

26:25 (-68c) 25:24 (-71c) **M** 22:21 (-81c) 21:20 (-84c) 15:14 (-119c) 28:27 (-63c) *ritenuto* **M** *a tempo*

5/4 2/1 7/2 3/1 3/1 3/1 8/3

20:21 (+84c) 21:22 (+81c) 11/6 7/4 5/3 7/4 7/4 11/6

8<sup>va</sup>

*ritenuto* *a tempo*

*piano* *cresc.* *cresc.*

3/13 3/12 3/12 3/11 Ped. 3/10 3/12 5/16 3/9 \*

19 133 15:14 (-119c) 28:27 (-63c) 27:26 (-65c) 20 **M** 9/7 over trb. 39:38 (-45c)

-10 -29 -57 -55 -12 +6 +4 +2 +4 +6

11/4 7/3

11:12 (+151c) 12:11 (-151c) 9/2 9/2 5/1 11/2 9/2

10:9 (-182c) 11:10 (-165c) 12:11 (-151c) *ritenuto*

8<sup>va</sup> 8<sup>va</sup>

*sf* *cresc.* *sf* *cresc.*

Ped. \* Ped. 5/16 3/15 3/14 3/13 3/9 3/12 3/12 5/16 3/16 3/9 3/15 2/7 3/14 3/13 \*

*a tempo* *ritardando* **M** **M** **M** **M** **M**

19:18 (-94c) 16:15 (-112c) 16:15 (-112c) +4 +2 +2 +4 +2 +28 +28

5:8 (+814c) 6:5 (+316c) 7:6 (-267c) 6:7 (+267c) *sing C ad lib.*

9/2 4/3 5/4 5/4 7/3 7/4 5/2 (3/2)

*a tempo* *ritardando* 49:48 *vicino al tasto*

↑1 (+22c) ↓3 (-36c)

*a tempo* *ritardando*

*sf* *cresc.* *sf*

Ped. 5/16 3/12 3/15 3/15 \* Ped. 3/12 3/12 3/15 3/9 5/16 3/16 3/14 3/15 \*