Wolfgang von Schweinitz

Plainsound Brass Trio 1

18 microtonal variations exploring the trombone's
trigger valve action at various tuned slide positions

op. 50

2008

composed for the
Trio Kobayashi

Anna Robinson, Matthew Barbier, Lukas Storm

PLAINSOUND MUSIC EDITON

Performance Notes

INTONATION

This piece is a study exploring new playing techniques for microtonal just intonation. All the valve slides must be carefully tuned according to the instructions given below; and as all notes should be played with the valve combinations specified in the score, they "only" need to be centered in order to produce the intended microtonal pitches. The trombone part is composed in such a way that all notes within each of the 18 sections of the piece are to be played exactly in the same slide position, no matter whether the trigger valve is empoyed or not; and whenever the slide position is changed (at the beginning of every new section) it must be carefully tuned as specified in the score.

TUNING INSTRUCTIONS

DOUBLE HORN

The open F-Horn is tuned a pure major third below A, so that its 5th harmonic produces 220 Hertz. The open B-flat-Horn is tuned a perfect fourth above the F-Horn, so that its 6th harmonic produces the same pitch as the 8th harmonic of the open F-Horn. The 2nd valve slide of the B-flat-Horn is tuned such that the 4th harmonic of the A-Horn produces the same pitch as the 5th harmonic of the open F-Horn (220 Hz), and the 2nd valve slide of the F-Horn is tuned such that the 8th harmonic of the E-Horn produces the same pitch as the 6th harmonic of the A-Horn (330 Hz). The 3rd valve slide of the F-Horn is tuned such that the 6th harmonic of the D-Horn produces the same pitch as the 4th harmonic of the A-Horn and the 5th harmonic of the open F-Horn (220 Hz). The 3rd valve slide of the B-flat-Horn is tuned such that the 6th harmonic of the G-Horn produces the same pitch as the 8th harmonic of the D-Horn and the 5th harmonic of the open B-flat-Horn. Then the 1st valve slide of the B-flat-Horn is tuned in combination with the 2nd valve such that all harmonics of the valve combination 1+2 have the same pitches as those produced with the 3rd valve (G-Horn), and likewise the 1st valve slide of the F-Horn is tuned in combination with the 2nd valve such that all harmonics of the valve combination 1+2 have the same pitches as those produced with the 3rd valve (D-Horn).

5-VALVE F-TUBA

The open horn is tuned a pure major third below A, so that its 5th harmonic produces 220 Hertz. The 4th valve slide is tuned such that the 4th harmonic of the C-Horn produces the same pitch as the 3rd harmonic of the open F-Horn. The 3rd valve slide is tuned such that the 6th harmonic of the D-Horn produces the same pitch as the 5th harmonic of the open F-Horn (220 Hz). The 2nd valve slide is tuned such that the 4th harmonic of the E-Horn produces the same pitch as the 5th harmonic of the C-Horn (115 Hz). Then the 1st valve slide is tuned in combination with the 2nd valve such that all harmonics of the valve combination 1+2 have the same pitches as those produced with the 3rd valve (D-Horn). The 5th valve slide is tuned in combination with the 4th valve such that the 6th harmonic of the valve combination 4+5 (B-flat-Horn) produces the same pitch as the 4th harmonic of the open F-Horn.

TENOR-BASS-TROMBONE

Once the tuning slide is adjusted such that the harmonics produced in the 1st position of the tenor trombone will match those of the open B-flat-Horn, the trigger valve slide is tuned such that the trigger valve will lower the pitch by a perfect fourth in the first position, so that the harmonics produced in the 1st position of the bass trombone will match those of the open F-Horn. Thus the trigger valve acts exactly like the 4th valve of the tuba. This is demonstrated in the table showing the 18 microtonal slide positions used for the performance of this piece (see below).

PERFORMANCE DURATION *circa 25 minutes (without the pauses between the movements)*

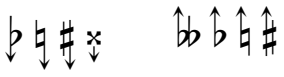
The first performance was given by Trio Kobayashi on June 13, 2009 in Los Angeles at The Wulf.

ACCIDENTALS **EXTENDED HELMHOLTZ-ELLIS JI PITCH NOTATION**

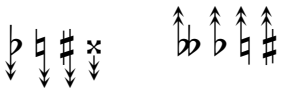
for Just Intonation

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

Pythagorean series of pure fifths
(based on the open strings : ... c g d a e ...)



Lowers / raises the pitch by a syntonic comma
(81/80) = ***circa 21.5 cents***



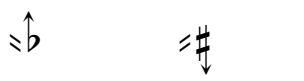
Lowers / raises the pitch by two syntonic commas
(81/80)(81/80) =* ***circa 43.0 cents***

Lowers / raises the pitch by a septimal comma
(64/63) = ***circa 27.3 cent***

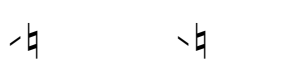
Raises / lowers the pitch by two septimal commas
(64/63)(64/63) =* ***circa 54.5 cents***

Raises / lowers the pitch by an 11-limit undecimal quarter-tone
(33/32) = ***circa 53.3 cents***

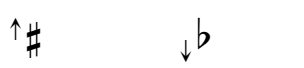
Lowers / raises the pitch by a 13-limit tridecimal third-tone
(27/26) = ***circa 65.3 cents***



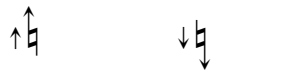
Lowers / raises the pitch of the subsequent accidental by a 17-limit schisma
(16/17)(16/15) = (256/255) =* ***circa 6.8 cents***



Raises / lowers the pitch of the subsequent accidental by a 19-limit schisma
(19/16)(27/32) = (513/512) =* ***circa 3.4 cents***



Raises / lowers the pitch of the subsequent accidental by the 23-limit comma
(23/16)(8/9)*(8/9)*(8/9) = (736/729) =* ***circa 16.5 cents***

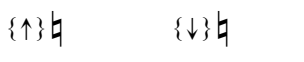


Lowers / raises the pitch of the subsequent accidental by a 29-limit comma
(29/16)(5/9) = (145/144) =* ***circa 12.0 cent***

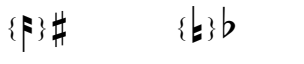
Lowers / raises the pitch of the subsequent 11-limit accidental by a 31-limit schisma
(32/31)(32/33) = (1024/1023) =* ***circa 1.7 cents***

Lowers / raises the pitch of the subsequent 11-limit accidental by a 37-limit schisma
(36/37)(33/32) = (297/296) =* ***circa 5.8 cents***

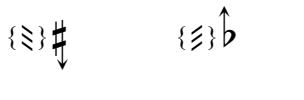
Lowers / raises the pitch of the 5-limit accidental by a 41-limit schisma
(32/41)(81/64)*(81/80) = (6561/6560) =* ***circa 0.3 cents***



Raises / lowers the pitch of the subsequent accidental by a 43-limit comma
(43/32)(3/4) = (129:128) =* ***circa 13.5 cents***



Lowers / raises the pitch of the 7-limit accidental by the 47-limit schisma
(32/47)(48/49)*(3/2) = (2304/2303) =* ***circa 0.8 cents***



Lowers / raises the pitch of the subsequent 5-limit accidental by a 53-limit comma
(32/53)(5/3) = (160/159) =* ***circa 10.9 cent***

Lowers / raises the pitch of the 13-limit accidental by a 59-limit schisma
(32/59)(24/13) = (768/767) =* ***circa 2.3 cents***

Raises / lowers the pitch of the 7-limit accidental by a 61-limit schisma
(61/32)(21/40) = (1281/1280) =* ***circa 1.4 cents***

In addition to the harmonic definition of a pitch by means of its accidentals, it is also possible to indicate its absolute pitch-height as a cents-deviation from the respectively indicated chromatic pitch in the 12-tone system of Equal Temperament.

The attached arrows denoting the pitch alteration by a syntonic comma are transcriptions of the notation that Hermann von Helmholtz used 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" (1875/1885) is 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 for the pitch alteration by a septimal comma was devised by Guiseppe Tartini (1692-1770), the composer-violinist and researcher who first studied the production of difference tones by means of tuned double-stops.

OVERVIEW

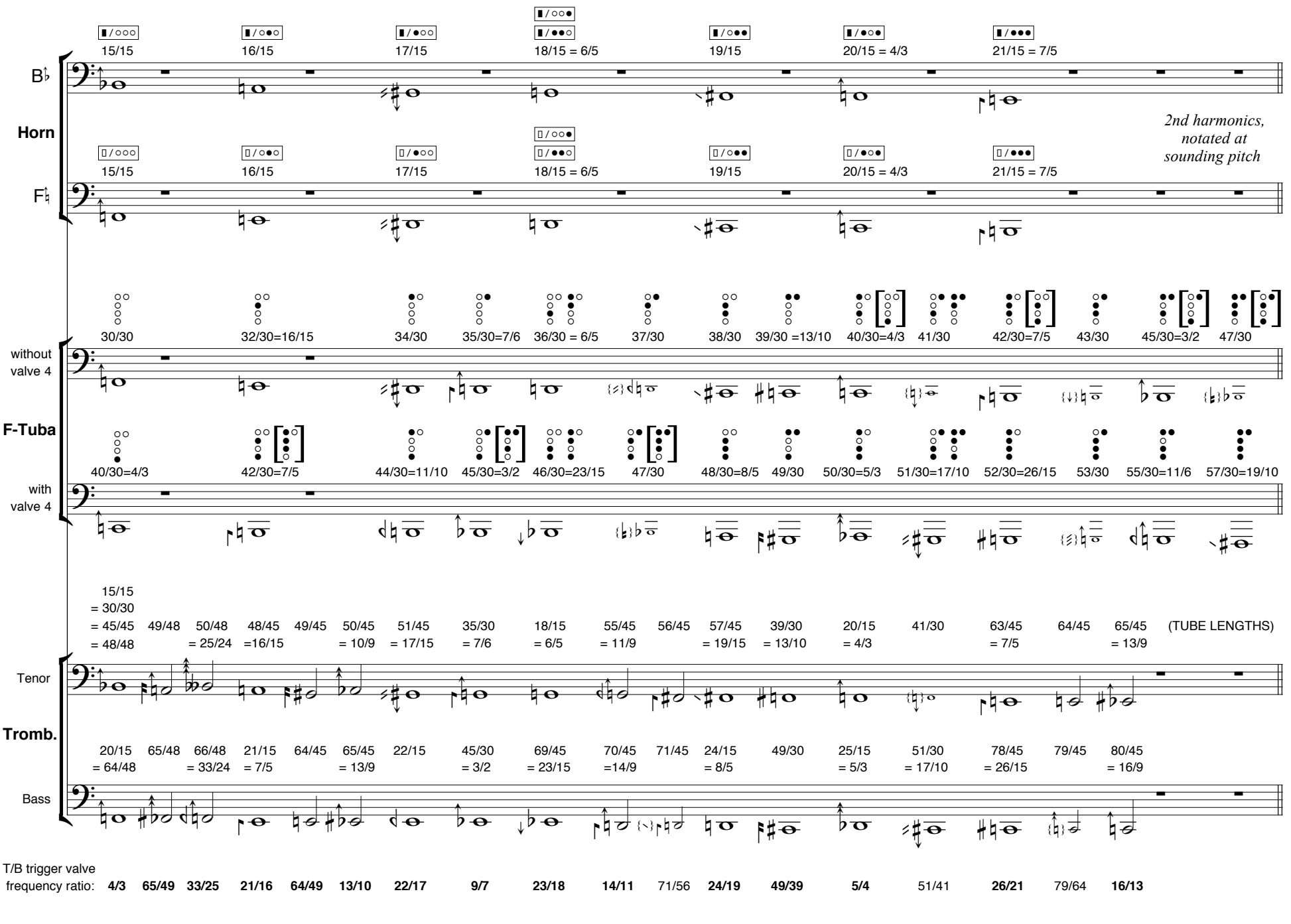
of the 18 microtonal Trombone slide positions

used for the performance of this piece

HORN : The valve slides 1, 2, and 3 are tuned to the rational proportions 2/15, 1/15, and 3/15 of the open horn's length (both in B-flat and F), producing, in various combinations, two related sets of Utonal chromatic Series of fundamental pitches with wavelengths in the proportions 15 : 16 : 17 : 18 : 19 : 20 : 21.

F-TUBA : The valve slides 1, 2, 3, 4, and 5 are tuned to the rational proportions 2/15, 1/15, 3/15 = 1/5, 5/15 = 1/3, and 5/30 = 1/6 of the open horn's length, producing, in various combinations, a Utonal micro-chromatic Series of fundamental pitches with wavelengths in the proportions 30:32:34:35:36:37:38:39:40:41:42:43:44:45:46:47:48:49:50:51:52:53:55:57.

Tenor/Bass-TROMBONE : As the trigger valve slide is tuned to produce a perfect fourth in slide position I between B-flat and F, it acts exactly like the 4th valve of the Tuba.

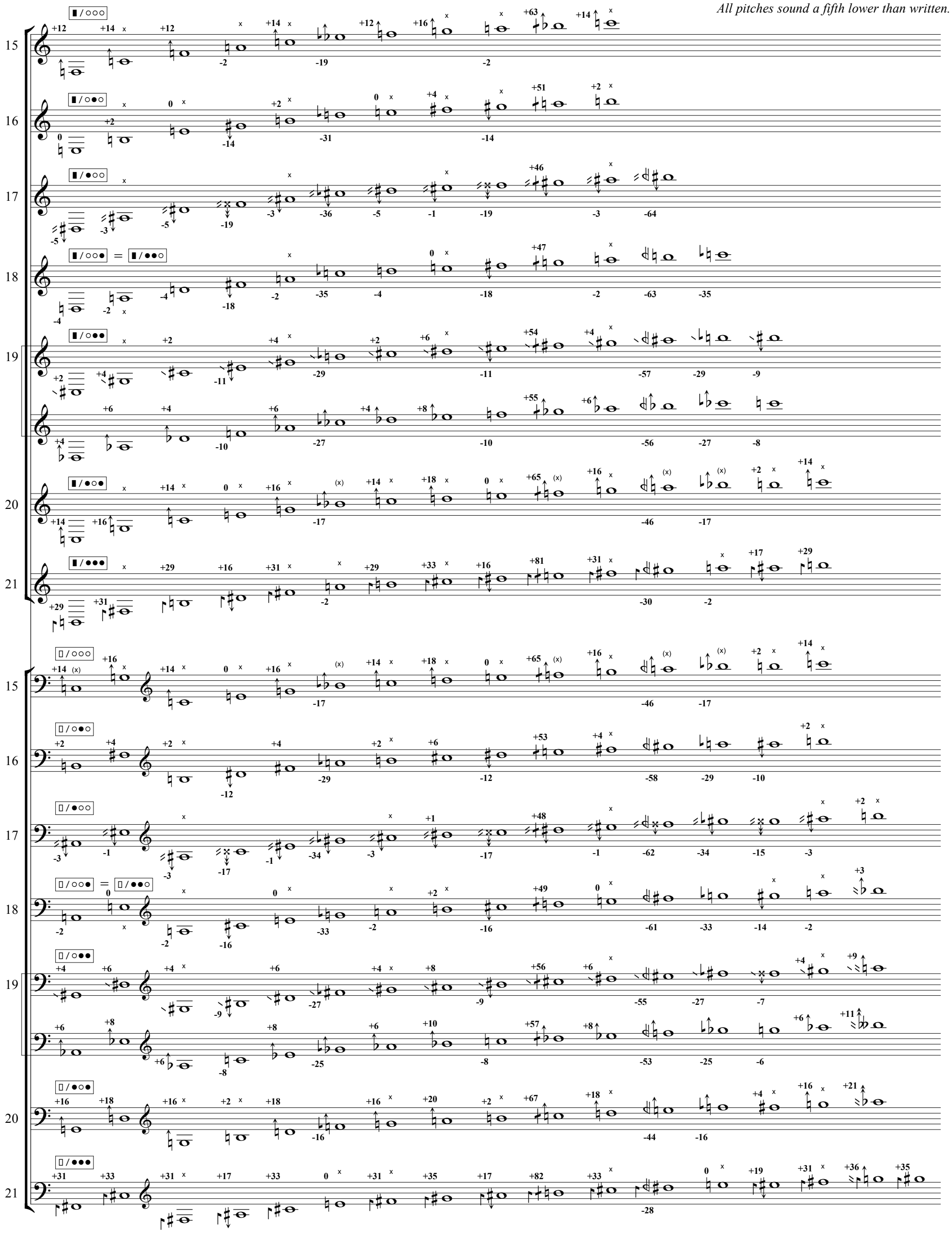


Microtonal Pitch Repertoire of the Double Horn

HORN TUNING

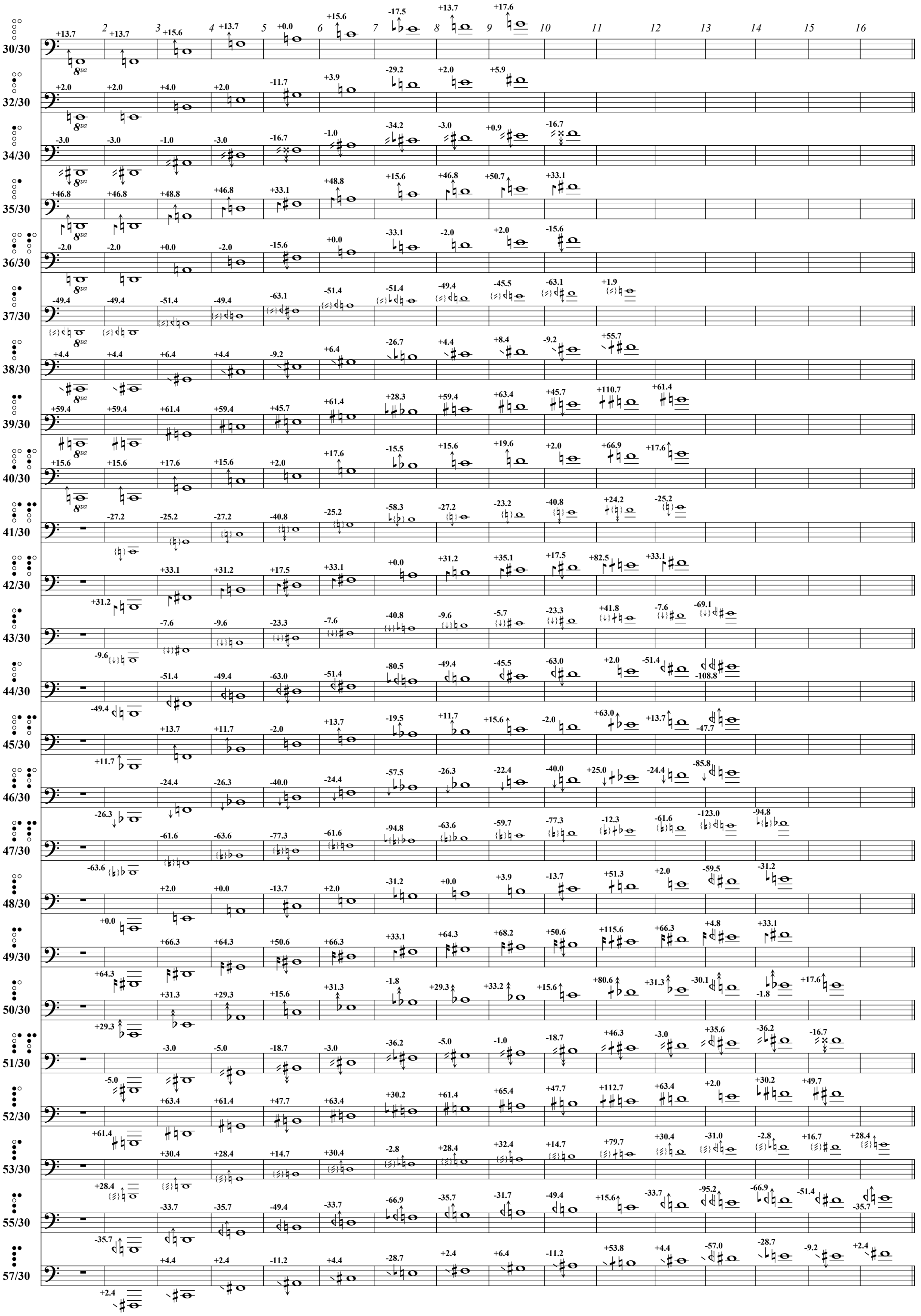
The valve slides 1, 2, and 3 are tuned to the rational proportions 2/15, 1/15, and 3/15 of the open horn's length (both in B-flat and F), producing, in various combinations, two related sets of Utonal chromatic Series of fundamental pitches with wavelengths in the proportions 15 : 16 : 17 : 18 : 19 : 20 : 21

All pitches sound a fifth lower than written.



Microtonal Pitch Repertoire of the 5-Valve F-Tuba

with valve slides 1, 2, 3, 4, and 5 tuned to the rational proportions 2/15, 1/15, 3/15 = 1/5, 5/15 = 1/3, and 5/30 = 1/6 of the open horn's length



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18 microtonal variations exploring the trombone's
trigger valve action at various tuned slide positions

REGION I

Wolfgang von Schweinitz
op. 50 (2008)

lento rubato (𝅝 ca. 52 - 54) *

notation in C

Horn

Trombone

Tuba

T:B = 4:3

3 / 2

Tune the first slide position

28 : 27 *(- 63 c)*

21 : 20 *(- 84 c)*

*) *The performers may add a short fermata to any note or rest at their discretion.*

1

20 : 21 *(+ 84 c)*

15 : 16 *(+ 112 c)*

28
21
12

21 : 20 *(- 84 c)*

28 : 27 *(- 63 c)*

64 : 63 *(- 27 c)*

11
5
2

2

11
7
2

15 : 14 *(- 119 c)*

33 : 32 *(- 53 c)*

3

13
8
5

13
5
4

7 / 4

13 / 8

65 : 64 *(- 27 c)*

Tune the new slide position

T:B = 65:49

51 : 52 *(+ 34 c)*

5 / 4

7 / 4

8 : 13

5 / 4

39 : 40 *(+ 44 c)*

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17

35 20 16 | 35 28 16 | **4** | 7 4 3 | 13 8 5 | 13 5 4

p *f* *mf* *p* *ff* *mf* *p*

343 : 325 *(- 93 c)* **B** 5

espr. *crescendo*

p espr. 8 / 3 SLIDE PAGE 13 / 4

21

13 8 5 | **5** | 7 4 3 | 21 : 20 *(- 84 c)* | 24 20 15 | 8 5 3 | 8 7 3

f *più f* 49 : 52 *(+ 103 c)* *p* *espr.*

crescendo *f* *più f* *mf* **T** 5 7 / 6 8 / 7 7 : 5 *p* *espr.*

24 : 25 *ossia* 8 / 5 8 / 3 7 : 5

f *più f* *mf* *p* *espr.*

25

6 15 : 14 *(- 119 c)* 27 : 28 *(+ 63 c)* 49 : 50 *(+ 35 c)* 8 : 7 *(- 119 c)*

3 3

pp *p* *pp* *p marc.* *espr.* *poco f*

SLIDE PAGE 7 / 3 5 / 4 5 / 4 5 / 3 5 / 3 5 / 3 5 / 3 7 / 5 10 / 7 7 / 4 7 / 3 7 / 3

7 / 3 7 / 2 50 : 49 *(- 35 c)* 49 : 50 *(+ 35 c)* 49 : 48 *(- 36 c)* 8 : 7 *(- 119 c)*

3 3

pp *p* *pp* *p marc.* *espr.* *poco f*

30

15 : 14 *(- 119 c)* **7** SLIDE PAGE

p *pp* *p* *pp*

5 / 4 49 : 48 *(- 36 c)* **T:B = 33:25** 5 / 4 *Tune the new slide position* 4 / 1 4 / 3 5 / 4

pp *p* *pp* *sf* *p*

49 : 48 *(- 36 c)* -0.7c -0.7c -0.7c -0.7c "16 : 15" -0.7c

p *pp* *p* *pp* *p* *pp* *p*

34

8

11 / 4

11
6
4

11 / 4 11 / 4

11 / 4 11 / 2

pp mf p espr. f

B T B

espr. pp mf p f p

3

132 : 125
(- 94 c)

SLIDE PAGE

p espr.

11 / 5 5 / 3 5 / 4

38

9

11 / 4 11 / 4 11 / 4 11 / 4 11 / 7 5 / 3

p espr. pp p mf p mf p

T B T

5 / 4 2 / 1

99 : 100
(+ 17 c)

espr. pp p mf p 6 : 7 mf p

-0.7c

35 : 33
(- 102 c)

p pp p 10 : 9 : 10

42

10

11
8
1 - 3

8
5
3

25
20
16

25
20
16

25
16
10

7 / 4

ff sffz mf f ff

3 / 2

(+ 17 c)

75 : 77
(+ 46 c)

pp molto crescendo ff sffz p mf f ff

-0.7c

132 : 125
(- 94 c)

p pp sffz p mf f ff

46

11

11 / 8 5 / 4

4 / 3

9
7
2

12

16 : 15

f p dolce pp p pp espr.

T:B = 21:16

B T (- 41 c) Tune the new slide position

SLIDE 2 PAGES

same slide position T

f p dolce pp p pp

10 : 11
(+ 165 c)

16 : 15
(- 112 c)

63 : 64
(+ 27 c)

pp pp p pp espr.

51

63 : 64 (+ 27 c)
20 : 21 (+ 84 c)
48 : 49 (+ 36 c)
63 : 64 (+ 27 c)
13

p marc. *mp* *pp* *p* *espr.*

T B T T B T B T B

21 : 20 (- 84 c)

55

35 / 14 / 4
7 : 4
32 : 33 (+ 53 c)
24 : 25 (+ 71 c)
14
20 : 21 (+ 84 c)

f *p* *cresc.* *dolce* *pp*

5 : 6
5 : 7
21 : 25 (+ 302 c)

59

35 : 36 (+ 49 c)
39 : 40 (+ 44 c)
49 : 48 (- 36 c)
12 / 7 / 5
28 / 24 / 21
8 / 7 / 6
15
28 / 21 / 15
108 / 81 / 56
8 : 5

espr. *f* *sub.p* *cresc.* *mf* *p* *ff* *ff* *p cresc.*

7 : 8
48 : 49 (+ 36 c)
20 : 21 (+ 84 c)
49 : 48 (- 36 c)

63

11 / 5 / 3
9 / 5 / 4
7 / 4 / 3
63 : 64 (+ 27 c)
SLIDE 2 PAGES

22 : 21 (- 81 c)
16 : 15 (- 112 c)
T:B = 21:16 *Tune the new slide position*
(- 27 c) (-76 c) (+76 c)
3
5 / 2
49 : 48 (- 36 c)
SLIDE 2 PAGES

16

67

27 : 28 (+63 c) 49 : 48 (- 36 c) 7 6 4 48 : 49 (+36 c) 7 6 4 9 7 6

(+76 c) 5 T B T 48 : 49 (+36 c) B (+76 c) T (+36 c) B

p espr. p espr. mf

(- 36 c) (+36 c)

p espr. mf

13 7 6 91 : 96 (+93 c) 7 4 3 48 : 49 (+36 c) 7 4 3 17

71

(18) or (11) -11c (14)

f ff 9 7 3 63 : 64 (+ 27 c) pp p marc. 48 : 49 (+36 c) espr.

(+195 c) T (+36 c) B 63 : 64 (+ 27 c) T B T SLIDE PAGE 12 / 5 7 / 3 7 / 4 7 / 4 7 / 4

f ff pp p marc.

49 : 48 (- 36 c) (+36 c) 63 : 64 (+ 27 c) 20 : 21 (+ 84 c) 49 : 48 (- 36 c)

f ff pp p marc. espr.

7 5 1 8 : 7 (- 119 c) 16 14 11 10 9 7 63 : 64 (- 27 c) (+ 27 c) 8 7 6 18

75

33 28 12 (+36 c) 9 7 3 (- 36 c) (+36 c)

pp p cresc. mf f più f

same slide position T (- 76 c) B (+76 c) T (+89 c) B (+113 c) T (+36 c)

pp p cresc. mf f più f

(- 45 c) (+195 c) (+36 c) (- 36 c) (+36 c)

pp p cresc. mf f più f

9 7 3 48 : 49 21 : 20 (+36 c) (- 84 c) 49 : 48 (- 36 c) 7 : 10 19

79

ff p pp p pp p

B SLIDE PAGE 7 / 2 7 / 2 5 / 1 7 / 1 7 / 1 7 / 2 5 / 1 same slide position T 50 : 49 (- 35 c) T:B = 13:10 T Tune the new slide position

ff pp p pp p

48 : 49 (+36 c) 49 : 48 (- 36 c) 7 : 5 (- 35 c) (+35 c) 50 : 49 (- 35 c)

ff p pp p pp p

83

20

40 15 12 | 13 5 4 | 13 11 5 | 16 13 5 | 20 15 6

espr. *poco f* *p* *cresc.* *f* *mf*

39 : 40 *(+ 44 c)* B | T B | 13 / 4 | 13 / 2 | 13 / 8 | 13 / 7 | 13 / 8 | T

espr. *poco f* *p* *cresc.* *molto f* *mf*

39 : 40 *(+ 44 c)* | 25 : 26 *(+ 68 c)*

espr. *poco f* *mf* *f* *mf*

88

21

8 / 5 | 8 / 5 | 6 / 5 | 12 / 5 | 7 / 3

p *pp*

39 : 40 *(+ 44 c)* B | 8 : 5 | 25 : 26 *(+ 68 c)* T | *(+ 44 c)* B | 90 : 91 *(+ 19 c)* T | 13 : 8 B

p *pp* *p* *espr.*

39 : 40 *(+ 44 c)* | *(- 114 c)* | *(+ 44 c)* *(+ 68 c)* | 26 : 25 *(- 68 c)*

p *pp* *p* *espr.* *mf* *f* *p* *espr.*

22

15 10 8 | 13 5 2 | 13 5 4 | 13 6 5 | 13 8 5 | 13 8 5

mf *f* *p* *espr.*

93

13 8 5 | 13 8 5 | 13 8 5 | 13 8 5 | 13 8 5

23

13 6 5 | 15 8 6 | 40 24 15 | 13 8 5 | 13 12 5 | 15 14 6

f intenso *mf* *p* *espr.* *mf*

14 : 13 : 12 T B T | B | *(+ 68 c)* T | *(+ 44 c)* B | *(+ 19 c)* T

f intenso *mf* *p* *espr.* *mf*

14 : 13 : 12 | *(- 114 c)* | *(+ 44 c)* | *(+ 68 c)*

f intenso *mf* *p* *espr.* *mf*

24

13 12 10 | 16 13 12 | 12 10 9 | 16 13 10 | 24 20 15 | 16 13 10 | 22 13 10 | 9 5 4 | 16 13 10 | 6 5 4

97

(+ 53 c)

f *più f* *ff* *fff* *sffz*

B *(+ 68 c)* T | *(+ 97 c)* B | *(+ 107 c)* T | B T *(+ 44 c)* B | T

f *più f* *ff* *fff* *sffz*

(+ 68 c) | 12 : 13 : 10 *(+ 97 c)* | *(+ 68 c)* | *(- 68 c)*

f *più f* *ff* *fff* *sffz*

SLIDE 2 PAGES

SLIDE 2 PAGES

SLIDE 2 PAGES

REGION II

lo stesso tempo (𝅝 ca. 52 - 54)

101

T:B = 22:17

Tune the new slide position

T *(- 34 c)*

B

pp *p* *pp* *p* *pp* *p* *espr.* *mf*

25

105

f *più f* *ff* *f* *più f* *ff*

26

109

f *mf dim.* *p* *pp* *espr.*

27

113

SLIDE next PAGE

p *pp* *espr.* *mf* *p* *marc.*

28

117

16 : 17 (+ 105 c)

12 11 9 — 28 24 21 — 8 7 6 — 11 6 5 — 51 : 52 (+ 34 c) — 13 7 6

4 / 3 4 / 3

f *ff* *f* *mf cresc.* *f* *più f*

(+ 11 c) (+ 11 c) (+ 11 c) (+ 11 c) (+ 60 c)

T B T B T

mf *f* *ff* *mf* *p cresc.* *f* *più f*

29

121

11 6 5 — 11 8 6 — 11 6 4 — 12 11 7 — 24 : 25 (+ 71 c) — 45 : 44 (- 39 c) — 11 : 10 (- 165 c) — 28 : 27 (- 63 c)

ff *f* *mf p cresc. molto espr.* *ff* *mf* *p*

B SLIDE PAGE 45 : 44 (- 39 c)

ff *mf* *p*

11 / 4 11 / 4 11 / 4 11 / 4 11 / 3 11 / 2 11 / 1 11 / 1 7 / 3 27 / 14

15 : 16 (+ 112 c) — 24 : 25 (+ 71 c) — 45 : 44 (- 39 c)

ff *f* *mf p cresc.* *ff* *mf* *p*

30

21 : 20 (- 84 c)

126

pp *p* *pp espr.* *p pp* *pp ppp* *p* *dolce*

T:B = 9:7 *Tune the new slide position*

B (- 39 c) T B T B T

27 : 28 (+ 63 c) — 35 : 36 (+ 49 c)

7 / 6 *pp* *p* *pp espr.* *p pp* *pp ppp* *p* *dolce*

31

27 : 28 (+ 63 c) — 35 : 36 (+ 49 c)

pp *p* *pp espr.* *p pp* *pp ppp* *p* *dolce*

14 : 15 (+ 119 c) — 5 : 6 : 7 — 20 : 21 (+ 84 c) — 24 : 25 (+ 71 c) — 35 : 36 (+ 49 c) — 8 7 5 — 11 9 6 — 14 : 15 (+ 119 c) — 12 10 7 — 24 15 10 — 27 : 28 (+ 63 c) — 8 5 3

131

p pp *mp* *espr.* *mf* *f* *più f p*

B T B (+ 49 c) T (+ 116 c) B (+ 88 c) T T (+ 63 c) B

14 : 15 (+ 119 c)

p pp *mp* *espr.* *mf* *f* *più f p*

14 : 15 (+ 119 c) — 35 : 36 (+ 49 c) — (- 119 c) — (- 119 c)

5 : 6 : 7

p pp *mp* *espr.* *mf* *f* *più f p*

32

136

21 : 20 | 15 : 14 | 21 : 20 | 21 : 20 | 7 / 4 | 7/5/4 | 7/5/4

f | *mf* | *mp* | *p* | *più p* | *pp*

7 : 6 | 7 : 6 | 36 : 35 *(- 49 c)*

B T | T B T | B | T | B T

f | *mf* | *mp* | *p* | *più p* | *pp*

6 / 5 | 6 / 5 | 6 / 5

SLIDE 2 PAGES

p | *pp*

33

142

SLIDE PAGE

pp | *p*

SLIDE PAGE

T | 6 : 7 B

pp | *p*

p | *espr.* | *pp* | *p*

14 : 15 *(+119c)*

8/7/6

146

mf | *p* | *pp* | *p* | *mf* | *pp*

T | B T | B | T

mf | *p* | *pp* | *p* | *mf* | *pp*

34

15/10/6 | 23/10/6 | 23/12/8 | 23/6/4 | 23/10/6 | 23/16/12 | 23/8/3 | 18/8/3

150

p | *espr.* | *p* | *pp*

Tune the new slide position 46 : 45 *(- 38 c)*

T:B = 23:18 T *(- 39 c)* | B | 24 : 23 *(- 74 c)* T

1 : 1

p | *espr.* | *p* | *pp*

46 : 45 *(- 38 c)* | 24 : 23 *(- 74 c)*

p | *espr.* | *p* | *pp*

155

35

9 5 3 | 23 16 10 | 23 16 6 | 15 10 4 | 9 8 3 | 9 7 3 | 23 : 12 | 12 8 5 | 23 18 6 | 23 16 6 | 23 22 3 | 10 8 3

-10c

-10c

p *pp* *pp* *p* *espr.*

(- 109 c) B *(- 74 c)* T B T 161 : 162 *(+ 11 c)* B T

22 : 23 : 24

p *pp* *pp* *p* *espr.*

46 : 45 *(- 38 c)* 45 : 46 *(+ 38 c)* 24 : 23 *(- 74 c)* 46 : 45 *(- 38 c)* 8 : 23 23 : 24

p *pp* *pp* *p* *espr.*

159

36

23 16 6 | 20 15 6 | 6 5 1 | 6 5 1

mf *p* *pp* *p espr.*

B T T (9) T:B = 14:11 5 : 6 T (11) *(- 39 c)* SLIDE PAGE

Tune the new slide position

mf *p* *pp*

45 : 46 *(+ 38 c)* 6 / 1 SLIDE PAGE

mf *p* *pp*

163

37

14 : 15 *(+ 119 c)*

pp *p* *mf*

same slide position B (7)

pp *p* *mf*

3 / 1 7 : 5

167

38

SLIDE 2 PAGES

14 8 4 | 11 6 4

f

22 : 21 *(- 81 c)* T 56 : 55 *(- 31 c)* B T 21 : 22 *(+ 81 c)* B 99 : 98 *(- 18 c)* T B

f *p espr.* *mf* *p*

55 : 56 *(+ 31 c)* 21 : 22 *(+ 81 c)* 35 : 33 *(- 102 c)* 7 / 3 9 / 5 7 / 4 3 / 2

f *espr.* *mf* *p*

39

171

44 33 12 — 21 : 20 (- 84 c) — 7 5 2 — 15 : 14 (- 119 c) — 15 10 6 — 16 : 15 (- 112 c) — 8 5 3 — 11 7 4 — 11 5 1

55 : 56 (+ 31 c) — 18 / 11 — 10 : 11 (+ 165 c) — (B (14)) — T (11)

10 : 11 (+ 102 c) (+ 165 c) — 5 / 2 — 21 : 22 (+ 81 c) — 5 : 7 — 33 : 32 (- 53 c)

40

174

11 5 3 — 7 : 5 — 5 3 2 — 6 : 7 — 7 4 3 — 5 3 2 — 11 6 4 — 11 4 3 — 11 5 4 — 11 5 4

35 : 33 (- 102 c) — 6 : 5 — 22 : 21 (- 81 c) — 56 : 55 (- 31 c) — 7 / 1 — 7 / 2

(+ 81 c) — (- 81 c)

41

"10 : 9" — "6 : 7" — "8 : 7"

-4.5c

42

177

9 6 5 — 12 8 5 — 10 7 4 — 7 6 4 — 15 12 10

10 : 11 : 12

(+ 102 c) — 8 : 7 — (+ 18 c)

9 : 5 — (- 102 c) — (+ 84 c) — (+ 31 c)

43

180

6 5 2 — 10 8 7 — 6 5 4 — 8 7 4

44

3 — 7:4 — 7:4

SLIDE 2 PAGES

SLIDE 2 PAGES

184

45

T:B = 71:56

Tune the new slide position

T *(- 31 c)*

46

47

SLIDE PAGE

191

188

(+ 291 c) *(- 87 c)* *(- 25 c)* *(+ 25 c)* *(- 95 c)* *(- 24 c)*

(+ 24 c) *(- 25 c)* *(+ 25 c)* *(- 24 c)*

(- 119 c)

"9 : 8"

195

48

T:B = 24:19

Tune the new slide position

(- 24 c) *(+ 18 c)* *(- 94 c)* *(- 112 c)*

pp *p* *mf* *espr.* *(non cresc.)* *cresc.*

200

9/7/4 6/5/4 16 : 19 (+ 298 c) 19 : 18 (- 94 c) 9/7/6 9/7/6 24/19/16 9/7/6 **49** 24/19/16

mf p mf p f ff mf

19 : 20 (+ 89 c) 19 : 18 (- 94 c) 56 : 57 (+31c) (-31c) (+31c)

B T B T B T B T

mf p mf p f ff mf

16 : 19 (+ 298 c) 19 : 18 (- 94 c)

mf p mf p f ff mf

204

7/4/3 19/16/10 28/24/21 56 : 57 (+ 31 c) 28/24/21 48 : 49 (+ 36 c) 8/7/6 21 : 20 (- 84 c) 15 : 14 (- 119 c) 19 : 18 (- 94 c) **50** 11/7/4 19 : 18 (- 94 c) 12/7/4 21 : 20 (- 84 c) 19/10/9

p pp p p espr. mf

(+31c) B T (+ 31 c) B (+ 18 c) T B (+ 34 c) T (+ 94 c) B

p pp p p espr. mf

56 : 57 (+ 31 c) 19 : 18 (- 94 c) 96 : 95 (- 18 c) 15 : 16 (+ 112 c) (- 94 c)

p pp p p espr. mf

208

40/24/15 18 : 19 (+ 94 c) 13/8/5 19 : 18 (- 94 c) 28/24/21 22/8/3 96 : 95 (- 18 c) 14/5/2

f più f ff SLIDE 2 PAGES

38 : 39 (+ 45 c) (- 94 c) 132 : 133 (+ 13 c)

T B T T B T B SLIDE 2 PAGES

f più f ff

18 : 19 (+ 94 c) (- 94 c) 18 : 19 (+ 94 c) SLIDE 2 PAGES

f più f ff

REGION III

lo stesso tempo (𝅝 ca. 52 - 54)

212

20 / 3 13 / 2 16 / 5 13 / 4 13 / 4

40 : 39 *(- 44 c)* 65 : 64 *(- 27 c)* *(- 67 c)* 39 : 38 *(- 45 c)*

51

13 / 6 / 4 13 / 10 / 6

molto p ***espr.*** ***mp marc.*** ***espr.***

T:B = 24:19 *Same slide position as before* **B** 19 : 18 *(- 94 c)* **T** 12 : 19 *(+ 789 c)* **B** 13 : 8 *(- 841 c)* **T:B = 49:39** *Tune the new slide position* **T** *(- 45 c)*

pp ***mp marc.*** ***espr.***

19 : 18 *(- 94 c)* 48 : 95 *(+ 1182 c)* 39 : 38 *(- 45 c)*

pp ***mp marc.*** ***espr.***

216

13 / 4 / 3 7 : 4 7 / 4 / 3 7 / 5 / 3 13 / 8 / 3

52

28 / 24 / 21 21 / 14 / 6 7 / 4 7 : 6 13 / 8 7 : 8 7 / 4 13 / 8 / 5

mf ***f*** ***f*** ***p*** ***espr.*** ***p*** ***cresc.*** ***mf***

(+ 103 c) **B** 195 : 196 *(+ 9 c)* **T** *(- 81 c)* **B** 13 : 14 *(+ 128 c)* **T** **B** **T** *(+103 c)*

mf ***f*** ***f*** ***p*** ***espr.*** ***p*** ***cresc.*** ***mf***

(+ 103 c) 6 : 7 4 : 13

mf ***f*** ***f*** ***p*** ***espr.*** ***p*** ***mf***

220

13 / 7 / 6 28 : 27 *(- 63 c)* 7 / 4 / 3 **53** 28 / 20 / 15 13 / 8 / 6 13 / 12 / 7 12 / 8 / 7 11 / 7 / 6 4 : 5 : 7 10 / 7 13 / 12 / 7 28 / 20 / 15 13 / 10 / 6

▯●●●(18) *or* ▮●○○(11) -11c 9 : 8 3 3

dolce ***p*** ***espr.*** ***mf***

(+ 40 c) **B** *(+ 9 c)* **T** **B** 7 : 11 *(+ 48 c)* *(+ 103 c)* **T** **B** **T** *(+ 81 c)*

dolce ***p*** ***espr.*** ***mf***

(+ 9 c) 14 : 13 *(- 128 c)* *(+ 222 c)* *(+ 9 c)*

(- 36 c)

dolce ***p*** ***espr.*** ***mf***

223

13 / 8 / 5 5 / 3 / 2 7 / 6 / 4 **54** 6 / 5 / 4 15 / 7 11 / 7 / 4 11 / 7 / 5 11 / 9 / 2 13 / 10 / 3

3 3 3 3

p ***pp*** ***p espr.*** ***mf***

Tune the new slide position

40 : 39 *(- 44 c)* **T:B = 5:4** **T** *(- 44 c)* **B** 14 : 15 *(+ 119 c)* **T** **B** **T** **B** 4 : 5 **T** 7 : 11 **B** *(- 97 c)*

3 3 5

p ***pp*** ***p espr.*** ***mf***

25 : 26 *(+ 68 c)* 35 : 36 *(+ 49 c)*

3 3 3

p ***pp*** ***p espr.*** ***mf***

226

13
10
3

11
6
5

7
5
3

55

12
10
7

7
6
4

f *più f*

26 : 25
(- 68 c)

25 : 24
(- 71 c)

45 : 44
(- 39 c)

36 : 35
(- 49 c)

16 : 25

21 : 20
(- 84 c)

56

7 : 5

230

ff *p* *dolce* *espr.* *molto espr.*

(- 49 c)

15 : 14
(- 119 c)

28 : 25
(- 196 c)

25 : 24
(- 71 c)

20 : 27

(-71c)

28 : 25
(- 196 c)

57

234

SLIDE 2 PAGES

mf *p* *molto p*

238

più p *pp*

58

242

51 : 50
(- 34 c)

28 : 27
(- 63 c)

p *pp* *p*

SLIDE 2 PAGES

51 : 50
(- 34 c)

5 / 2 7 / 2 7 / 2 5 / 1 5 / 2 5 / 1 5 / 1 5 / 2 9 / 2 7 / 2 5 / 2 7 / 3 9 / 5

49 : 50
(+ 35 c)

50 : 49
(- 35 c)

51 : 50
(- 34 c)

p *pp* *p*

59

246

pp *p* *pp* *p*

T:B = 51:41

Tune the new slide position

B *(- 34 c)*

(- 205 c)

pp *p* *pp* *p*

(- 822 c)

pp *p* *pp* *p*

60

250

(- 111 c) *(-105c)* *(-120c)* *(- 111 c)* *(- 216 c)*

ff *mf* *p* *espr.*

(+57c) *(-120c)* *(+205c)*

ff *mf* *p* *espr.*

204 : 205
(+ 8 c)

(+822c)

ff *mf* *p* *espr.*

253

(- 21 c or - 1221 c)

ossia:

f *molto p* *dolce* *p* *espr.*

(+ 30 c)

42 : 41
(- 42 c)

T:B = 26:21

Tune the new slide position

T *(- 42 c)*

f *molto p* *dolce* *p* *pp* *p* *espr.*

(- 120 c)

42 : 41
(- 42 c)

f *molto p* *dolce* *p* *espr.*

61

257

7 --> 4 --> 3 -->

49 : 48 (- 36 c) 6 : 7

28 : 27 (- 63 c)

15 10 2

9 : 8

"10 : 9"

6 5 2

9 : 8

8 5 3

"16 : 15"

9 7 6

6 : 7

▯●●● (18) *or* ▮●○○ (11) ▮●●●

-11c -11c -4.5c -4.5c -4.5c

pp *cresc.* *ff espr.* *p*

T

3 / 2

(-103c) B

pp *cresc.* *mf* *p*

5 : 3

(-187c)

pp *cresc.* *mf* *p*

62

261

13 7 5 — 13 5 4 — 13 7 4 — 13 5 2

mf *p* *p* *pp* *ossia:* *espr.* *dolce* *pp*

SLIDE PAGE

mf *p* 13 / 4 --> start sliding page here

mf *espr.* *p* *p* *pp* *espr.* *dolce* *pp*

63

265

13 9 5 — 13 --> 8 --> 6 -->

or 21 14 6 28 21 12 — or 28 12 21 21 14 12

p *pp* *p* *cresc.* *ossia:* *mf* *dolce*

13 / 4 B T

p *pp* *p* *cresc.* *mf* *dolce*

SLIDE PAGE

7 : 4

p *cresc.* *mf* *dolce*

64

268

5 4 3 — 7 5 3 — 12 11 7 — 7 6 4 — 7 5 3 — 10 9 6 — 13 12 7 — 10 7 6 — 7 6 4 — 13 11 7 — 7 6 4 — 14 12 5 — 5 4 3 — 13 10 7

SLIDE PAGE

p *cresc.* *f* *p* *mf* *p* *pp* *espr.*

20 : 21 B T B T (- 54 c) B T (- 22 c) B T (+ 17 c) B

(+ 84 c) 6 : 7

p *cresc.* *f* *p* *mf* *p* *pp* *espr.* *p*

5 / 4

(- 103 c)

p *cresc.* *f* *p* *mf* *p* *pp* *espr.* *p*

65

272

13 8 6 | 13 7 4 | 13 8 5 | 8 5 3 | 7 4 3 | 13 8 6

63 : 64 (+ 27 c) | 15 : 14 (- 119 c) | 16 : 15 (- 112 c) | 64 : 63 (- 27 c)

27 : 26 (- 65 c) | 13 : 12 (-138c) | 14 : 13 (-128c) | 52 : 49 (-103c) | 147 : 130 (- 213 c) | 65 : 63 (- 54 c)

mf | *f* | *mf* | *p* | *marc.* | *più p*

T B T B | T B | (+ 54 c) T | 104 : 105 (+ 17 c) B | (- 17 c) | T | 64 : 63 (- 27 c)

espr. | *marc.* | *mf* | *f* | *mf* | *p* | *marc.* | *più p*

9 / 7 | 4 / 3 ---> | 7 / 5 | 4 / 3 | 4 / 3 | 105 : 104 (- 17 c) | (+ 17 c) | (- 17 c) | 64 : 63 (- 27 c)

(-128c) (-138c) (-128c) (-103c) (-84c) (-128c) (- 54 c)

espr. | *marc.* | *mf* | *f* | *mf* | *p* | *marc.* | *più p*

66

276

(- 5 c)

pp | *pp* | *p*

T:B = 79:64

T (- 27 c) *Tune the new slide position*

(- 49 c)

pp | *pp* | *p*

SLIDE PAGE

pp | *pp*

67

280

▯○●○ (13) *or* ▮○○● (11)

-5c -9c

mf | *f marc.* | *più f* | *ff* | SLIDE PAGE

8 / 3 | 13 / 4 | 8 / 1 | 80 : 79 (- 22 c) | 13 / 4 | 16 / 5 | 16 / 7 | 13 / 8 | 2 / 1 | 16 / 5 | 8 / 3

B | T | B

mf | *f marc.* | *più f* | *ff* | *f*

13 / 4 | 5 : 6

mf | *f* | *ff* | *f*

68

284

10 8 7 | 15 12 10 | 9 7 6

80 : 79 (- 22 c)

f | *ff* | *sffz* | *mf* *p* | *pp*

8 / 7 | (- 71 c) | T | SLIDE 2 PAGES

ff *f* | *ff* | *sffz*

21 : 20 (- 84 c) | 80 : 79 (- 22 c)

ff *f* | *ff* | *sffz* | *mf* *p* | *pp* *p*

69

70

288

p espr. pp p

same slide position

T

9 / 7

5 5

p espr.

espr. pp p

9 10 10
7 7 7
3 3 2

71

292

+4c ■○○● +4c ▯○○●

5 5

(+ 65 c)

▯○●○ (13) or ■○○● (11)
-5c -9c

mf p espr. p espr. cresc. f sff

B

3 / 2

11 : 12
(+ 151 c)

4 / 3

13 / 4
(- 1151 c)

mf p pp pp cresc. f sff f

5 / 1 5 / 2

+4c +4c +4c +4c +4c +4c -5c

mf p pp p cresc. f

13 13 13 13 13 13 13 13 13 13 13 26
5 7 7 5 7 4 10 7 5 2 3 4
1 3 5 4 2 1 7 4 7 5 2 5

(+ 5 c)

72

296

▯○●○ (13) or ■○○● (11)
+/-0c -4c +/-0c +/-0c -4c

SLIDE PAGE

più f ff pp

T

più f ff mf p espr. pp

7 / 4

+/-0c +/-0c +/-0c

SLIDE PAGE

65 : 64
(- 27 c)

più f ff mf p pp pp

or

13 13 13 13 13 13 13 13 13 26
5 10 5 8 5 5 5 6 8 8
2 4 4 5 3 4 4 5 5

73

300

65 : 64 or 65 : 32
(- 27 c)

▮○○○ (▯○○○)

▯○○○ ▯○●○ ▯○○○

SLIDE next PAGE

ossia: ( )

pp p espr.

65 : 64
(- 27 c)

5 / 2

Tune the new slide position

T (- 27 c)

T:B = 16:13

8 / 5 --->

pp p espr. p cresc.

5 / 2 5 / 3

pp p p cresc.

74

304

B

f p mf

75

308

13 / 4 13 / 4

13 : 8 13 : 14 (+128c) 65 : 32 (-1173c)

T B

21 : 20 (- 84 c)

SLIDE PAGE

4 : 7 39 : 40 (+ 44 c)

espr.

76

312

64 : 65 (+ 27 c) 39 : 40 (+ 44 c)

15 : 14 (-119c) 28 : 27 (-63c)

f ff f espr. p dolce

ossia:

SLIDE PAGE

13 / 8 ---> 13 / 4 or 13 / 8 --->

77

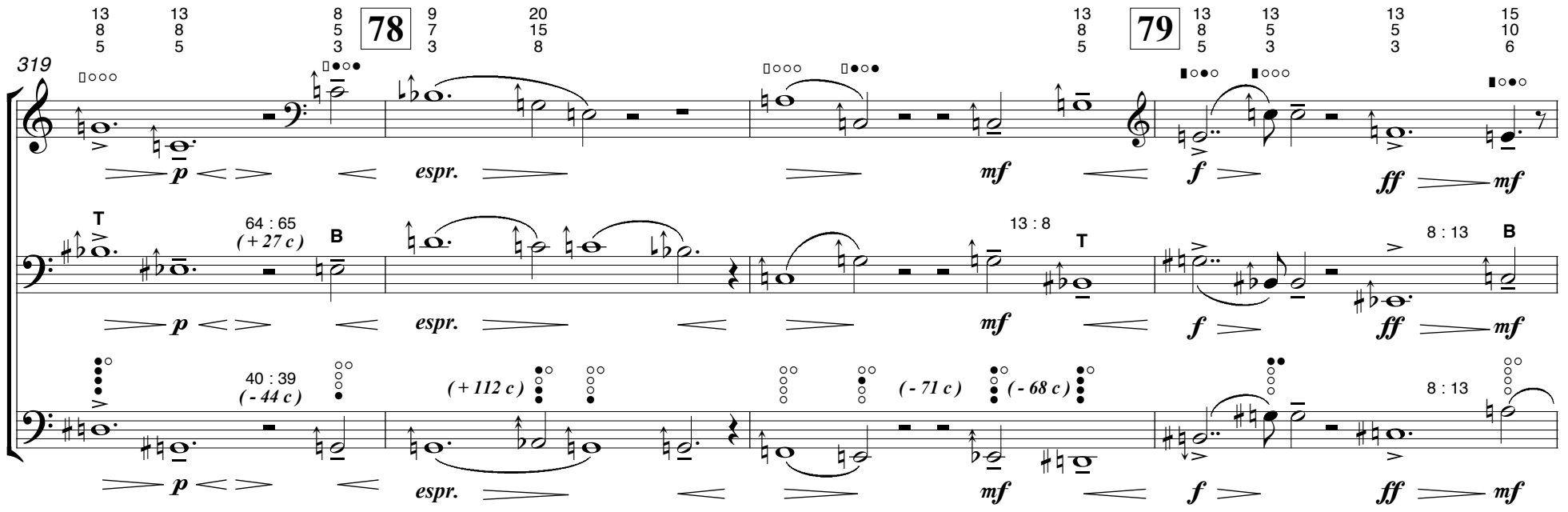
316

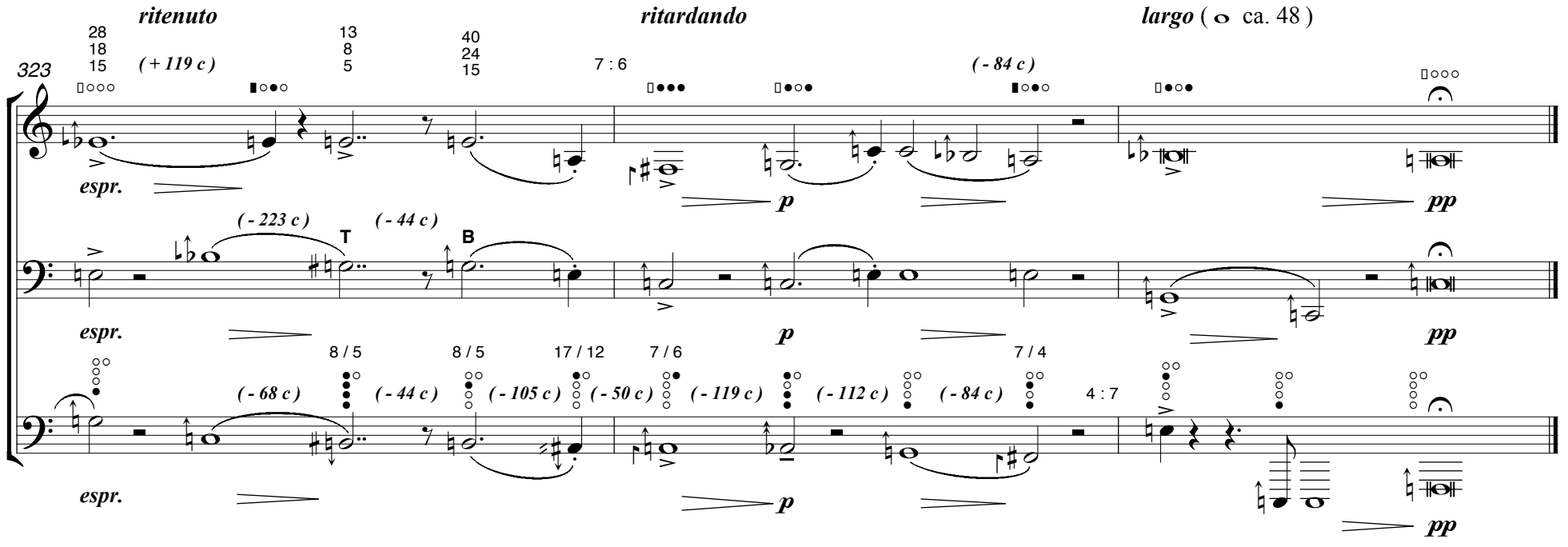
or

13 : 16 (+ 93 c) 14 : 13 (- 128 c) 13 : 12 (-139c)

molto espr. f intenso più f mf

(- 44 c) (+ 44 c)


319
78
79
espr.
mf
f
ff
mf
64 : 65
(+ 27 c)
13 : 8
8 : 13
40 : 39
(- 44 c)
(+ 112 c)
(- 71 c)
(- 68 c)
8 : 13


ritenuto
ritardando
largo (o ca. 48)
323
(+ 119 c)
7 : 6
(- 84 c)
espr.
p
pp
(- 223 c)
(- 44 c)
(- 68 c)
(- 105 c)
(- 50 c)
(- 119 c)
(- 112 c)
8 / 5
17 / 12
7 / 6
7 / 4
4 : 7