

Music for Marimba & Computer

for 5-octave marimba

by Cort Lippe

2004

Written for Pedro Carneiro

Commissioned by the 2004 Sonorities Festival of Contemporary Music and supported by the National Lottery through the Arts Council of Northern Ireland.

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Performance Notes for *Music for Marimba and Computer*

A 5-octave marimba is need to perform this piece.

Introduction

The first beat should be played as simultaneous 4-note chords. The tremolo between left and right hands should start where indicated. The angled beaming of the first beat indicates a ritardando within a single beat. (See also measure 1 of movement 1 for further use of angled beaming.)

Accents

All accented notes should be played with great force in comparison with neighboring notes.

Accents Grace Notes


All accented grace notes should be played with great force in comparison with the notes they grace. (For example, see the passage between measures 24 and 30 in movement 2 starting in the middle of page 5.)

Nota Bene #1 (page 7, measures 61-64)

The left hand part can be played an octave higher to facilitate reach. Octave transposition is suggested in similar passages throughout the piece if needed. (If the player physically cannot make the reach.)

Mallets

A set of four mallets should be chosen which are relatively soft yarn wrapped around a hard center. The indications for mallets suggest whether the hard mallet center should be emphasized or whether the softer yarn should be emphasized.

hard "touch" 

soft "touch" 

Electronics

While the piece is in 3 movements, there are two electronic "sections". Electronic events are indicated with a number inside a polygonal shape;



Page turns

There is ample time for page turns. Page turns should be done in the following 4 places:

- 1) between pages 3 and 4
(the last system of page 3 can be copied and taped to the top of page 4)
- 2) between pages 7 and 8
- 3) between pages 12 and 13
(the last system of page 12 can be copied and taped to the top of page 13)
- 4) between pages 15 and 16
(the last system of page 15 can be copied and taped to the top of page 16)

Cort Lippe

Program Notes

“Music for Marimba and Computer” (2004) was commissioned by the 2004 Sonorities Festival of Contemporary Music and supported by the National Lottery through the Arts Council of Northern Ireland for the opening of the Sonic Arts Research Center of Belfast, and written for the percussionist Pedro Carneiro. The electronic part was created at the Hiller Computer Music Studios of the University at Buffalo, New York, using Max/Msp, which was originally developed by Miller Puckette and whose dedication to computer music made this piece possible. Technically the computer tracks parameters of the marimba, such as pitch, amplitude, spectrum, density, rests, articulation, tempi, etc., using this information to trigger specific electronic events and continuously control all the computer sound output by directly controlling digital synthesis and compositional algorithms in real-time. (Thus, the performer is offered the possibility to “interact” with the computer, not simply triggering, but also continuously shaping all of the computer output.) Some of the sounds in the electronic part come directly from the composed marimba part, so that certain aspects of the musical and sound material for the instrumental and electronic parts are one and the same. Stored sound material, other than the marimba, is also manipulated via a variety of sampling techniques. The digital synthesis algorithms focus on frequency domain processing, including interpolation of spectral snapshots, cross-synthesis, noise reduction/enhancement, re-ordering of spectral components, and various non-standard spectral techniques. (Thanks to Erik Oña and Henrik Frisk for sharing my obsession with the spectral domain.) Standard time-based signal processing such as harmonizing, delay, frequency shifting, phasing, reverberation, spatialization, etc., are also employed. The instrument/machine relationship moves constantly on a continuum between the poles of an “extended” solo and a duo. Musically, the computer part is, at times, not separate from the marimba part, but serves rather to “amplify” the marimba in many “dimensions” and directions; while at the other extreme of the continuum, the computer part has its own independent “voice”.

Duration: 14 minutes.

(INTRODUCTION)

as fast as possible → rall. poco a poco to tremolo →

COMPUTER SECTION I

1

~10"

fff → *ff* ← *fff* → *ff*

~10"

(2 hands) *ff* → *f* ← *ff* → *f* ← simile →

f → *mf* ← *f* → simile →

~10"

(make change seem poco a poco)

ff → *f* ← *mf* → *f* ← simile →

rall. → (rall. tremolo poco a poco)

mf → *mp* ← *mf* → simile →

mp → *p*

1 ≈ 120 (MOVEMENT 1)

2

p → *pp* → (*ff*) → (*pp-p*) → (*f*)

3 (accented notes should be *ff-f*) while unaccented are *pp-p*)

(*pp-p*) > simile →

6

(*pp-p*) >

9

(pp-p) (*ff-f*) simile →

12

15

18

21

24

27

(p-mp)

30

33

36

39

42

(mp-mf)

45

(mp-mf) Cres. poco a poco...

48

sempre Cres. poco a poco...

poco accel. →

50

più mosso

ff

52

rall. poco a poco...

deces. poco a poco...

55

sempre rall. poco a poco...

mp sempre decres. poco a poco...

pp

[page turn]

(MOVEMENT 2)

1 a tempo

pp

(start playing when electronics have faded considerably)

p

8

pp p mp pp

4

14

mp mf pp p mp

3

19

p mp

5 6 (simile mallets...)

23

mf mp mf p

7 8 (sempre grace notes)

26

p mp

26

28

p (poco)

28

30 9

mf (repeat chords) (play e^b and e[♯])

mp 3

33

mp *mf* *f*

36 10

mp *mf* *mp* *mf* *mp* *mf*

39

accel... a tempo accel... simile...

mp *mf* *mp* *f* *mp* *f* *mf*

42 11

accel...

f *mf* *f* *mp*

45

accel. poco a poco...

mf

Cres. poco a poco...

sempre accel. poco a poco...

12

a tempo

48

mf *f*

p

51

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

54

8va

(stop trem.)

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

5

5

13

57

8va

mf *mp* *cres. poco a poco...*

5

5

60

8va

sempre cres... *f*

NB1

mf *cres. poco a poco...* *f*

accel. poco a poco...

14

sempre accel... (63)

rall... molto

(poco)

15

[page turn]

f *mp*

deces. poco a poco...

3

3

-page 7-

poco più lento, poco ad lib.
8va ---

65

pp

70

8va ---
rall. poco...

16

a tempo

accel. poco a poco...

pp

mf

cres. poco a poco...

17

sempre accel. 5

sempre cres...

ff

f

76

f

79

18

accel. poco a poco...

19

a tempo

f

mf

cres. poco a poco...

mp

82

accel. poco a poco...

a tempo

rall. poco a poco...

20

subito a tempo

accel. poco...

f

mf

P

f

poco accel... poco rit... accel. poco a poco...

86

sempre accel...

87

21 a tempo

mf

3 5 5

8va

22

91

mp

deces. poco a poco...

3 3 3 3 3

8va

94

poco rall.

molto rall...

sempre decres...

pp

3 3

8va

23

96

a tempo

pp

f

rall. poco a poco...

100

24

a tempo

accel. poco a poco... 6

f

mf

cres. poco a poco...

5 6

sempre accel. 25 a tempo marcato

103

sempre cres. *ff*

26 accel. poco a poco 27 a tempo

105

mf cres. poco a poco... *ff*

28 a tempo, accel. poco a poco... 29 a tempo

107

ff *mf* *f*

30 rall. poco 31 più lento-rall. poco... 32 8va--- a tempo

110

f *mf* *mp* *pp* *f*

33

113 8va---

f *mf* *f* *mf*

34 marcato 8va---

116

mf *f* *mf* *f* *mf*

ff

8va ----- (120)

ff

3 3 3

Detailed description: This system contains measures 120, 121, and 122. The right hand is marked '8va' and contains a melodic line with eighth notes and some accidentals. The left hand has a bass line with triplets of eighth notes. The dynamic is 'ff'.

8va ----- (123) *rall. poco a poco ...* 35 *a tempo*

ff

mf

3 5

Detailed description: This system contains measures 123, 124, and 125. Measure 123 is marked 'ff'. Between 123 and 124, the tempo changes to 'rall. poco a poco ...'. Measure 125 is marked '35 a tempo' and 'mf'. The right hand has a melodic line with a quintuplet in measure 125. The left hand has a bass line with triplets.

8va ----- (126)

mf

5 3

Detailed description: This system contains measures 126, 127, and 128. The right hand has a melodic line with slurs and accents. The left hand has a bass line with triplets. The dynamic is 'mf'.

(129) 8va -----

mf mp

3 3

Detailed description: This system contains measures 129 and 130. The right hand has a melodic line with triplets. The left hand has a bass line with triplets. The dynamic starts at 'mf' and changes to 'mp'.

8va ----- (131)

p

3

Detailed description: This system contains measures 131, 132, and 133. The right hand has a melodic line with triplets. The left hand has a bass line with triplets. The dynamic is 'p'.

8va ----- (134)

p

Detailed description: This system contains measures 134, 135, and 136. The right hand has a melodic line with slurs and accents. The left hand has a bass line with triplets. The dynamic is 'p'.

8va

136 sempre rall. poco a poco ...

36

p mf f mp

140 37

rall. un poco a tempo rall. poco a tempo

mf mp f mf f mf mp

143 38

rall. poco più lento rall. poco a tempo - rall. poco più lento

mf mp pp mf mp pp

146 39

a tempo rall. più lento rall. poco a tempo - rall. più lento

mf mp pp mp p pp

150

a tempo - rall. più lento a tempo simile... simile...

mp p pp mp p pp p

154

pp p pp

[page turn]

159

mf

p mp p

164

p mp p

p mp p

(MOVEMENT 3)

1 ≈ 132

ff p

p

7

40

mp

12

ff p

ff p

16

41/0

COMPUTER SECTION 2

ff pp

ff p

21 **1**

p *ff* *p* (*ff*) *simile...*

24

p *p* *ff* *simile...*

27 **2**

p *ff* *simile...*

30

mp *ff* *mp* *simile...*

33 **3**

mp *ff* *mp* *simile...*

36 **4**

mp *ff* *simile...*

39 **5**

mp (ff) *mf simile...* (ff)

42 **6**

mf (ff) *poco a poco cresc...* (ff) *sempre cresc...*

45 **7** **8**

f (ff) (ff) (ff) **8**

48

f *Cres. poco a poco...* *sempre cresc...* (fff)

51 **9** **10** ≈ 108

ff (fff) ff fff *accel. poco a poco...* **10** ≈ 108

[page turn]

54 ≈ 108 *rit. poco* ≈ 132

mf *rit. poco* ≈ 132

57 ≈ 132 **11** *accel. poco...* ≈ 108 (simile mallet...) *mf*

61 *rit. poco...* ≈ 132 **13** *mf* *mp*

64 *accel. poco...* ≈ 108 **14** *mp* *mf*

68 *rit. poco...* ≈ 132 **15** *mf* *mp* *accel. poco...*

71 ≈ 108 **16** *mf*

75 *rit. poco a poco...* ≈ 132 **17** *mf*

78 *accel. poco...* ≈ 108 18

81 *rit. poco...* ≈ 132 19 *accel. poco...* ≈ 108 20

85 *rit. poco...* ≈ 132 21 *accel. poco...* ≈ 108 22

90 *rit. poco...* ≈ 132 23 *accel. poco...* ≈ 108 24

94 *rit. poco...*

98 ≈ 132 25 *accel. poco...* ≈ 108 26 *rit. poco...* ≈ 132 27

102 *accel. poco...* ≈ 108 **28** *rit. poco...* ≈ 132 **29**

accel. poco... ≈ 108 **30** **108** *rit. poco...* ≈ 132 **31**

111 *accel.* ≈ 108 **32** *rit. poco...* **33**

116 ≈ 132 **33** ≈ 108 **34**

121 *rit. poco...* ≈ 132 **35** **36**

127 ≈ 108

135 *rit. poco...*

mf f mf

140

mf

145

mf

150 *rit. poco a poco...*

mf

senza decrescendo!

Buffalo
2004
(for Phoebe)

(fade electronics after \approx 40 seconds)