

Gilberto Agostinho

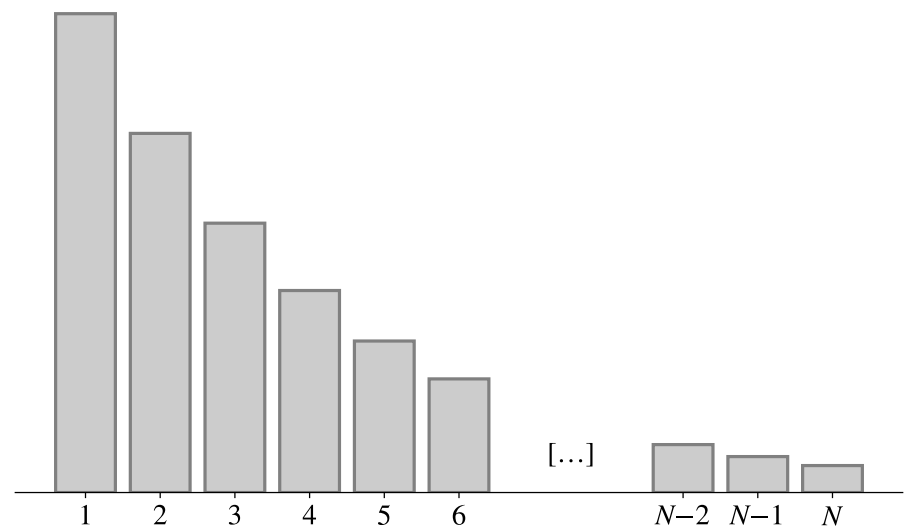
Cartography #10

for marimba, vibraphone, and piano

2018, revised 2020

Full Score

All pieces in this series were composed using the following distribution:



$$P(n) = (3/4)^k \times P(n - k)$$

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Mapping and rules

pitches		looping mechanism	
set size	$N = 6$	window size	$16 \times \text{♪}$ (post-loop)
transformation period	$1/2 \times \text{bar}$ (pre-loop)	shift size	semiquaver
transformation mechanism	$[a, b, c, d, e, f] \rightarrow [b, c, d, e, f, g]$, with $g \bmod 12 = (f \bmod 12) - 1$, and g at a uniformly randomly selected octave transposition. There is a 50% of chance of a new element being a rest, but two rests can never follow each other.	mechanism	the algorithm first creates a non-looped version of the music using the maps and transformation mechanisms to select pitches, durations and dynamics as described above. After this music is generated, the next stage is to use a 16 semiquavers-long window which is shifted to the right by a single semiquaver after every cycle. The processes ends when the last note of the pre-looped music leaves the looping window.
initial set	$[C6, B5, B\flat5, A5, A\flat5, G5]$		
dynamics		constraints	
set size	$N = 3$	- number of bars (pre-loop): 10. - range: F3–F6. - accents and diminuendos are added to all initial notes with a dynamic level of <i>p</i> or <i>mp</i>.	
transformation period	fixed		
set	$[pp, p, mp]$		
selection mechanism	the dynamics map is tied to the duration map, so that a same random index is used to select elements from both. For instance, if the duration at the second index has been selected, the dynamic <i>p</i> is then also selected.		
durations			
set size	$N = 3$		
transformation period	$2 \times \text{bars}$ (pre-loop)		
transformation mechanism	$[a, a - 1, a - 2] \rightarrow [a - 1, a - 2, a - 3]$, where an element equals to 1 if $a - k < 1$.		
initial set	$[10, 9, 8]$		

General performance notes

- this piece should be played fairly quietly. New notes with dynamics of *p* or *mp* always have a slightly louder attack than the ones around it. The diminuendo hairpins should be executed very smoothly, always reaching *pp* at the end.
- the piano's sustain pedal should be held halfway down throughout the piece. A good reference point for this is when individual note lengths cannot be precisely perceived (that is, the sound is not cut when releasing a key). Some instruments and acoustic spaces might call for slightly different pedalling (at the discretion of the performer). The performer may flush it ad libitum. Measures with rests at the end may benefit from less pedalling, but abrupt cuts of pedalling are to be avoided.
- use plenty of pedal in the vibraphone throughout the piece, blending consecutive sounds. The performer may flush it ad libitum. Rests are to be respected by flushing all sounds.
- after the last note of the piece, both the vibraphone and the piano should let the resonance disappear before raising the sustain pedal.
- the vibraphone's motor should remain off throughout the piece.
- medium mallets are recommended for the vibraphone.
- medium mallets are recommended for the marimba.

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Cartography #10

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[illegible]

9

Mar.

Vib.

Pno.

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

13

Mar.

Vib.

Pno.

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

17

Mar.

Vib.

Pno.

p *pp* *p* *pp* *p* *pp* *p* *pp* *mp* *pp*

22

Mar. *p* *pp*

Vib. *p* *pp* *mp* *pp*

Pno. *p* *pp* *mp* *pp*

26

Mar. *p* *pp* *p* *pp*

Vib. *mp* *pp* *mp* *pp* *mp* *pp* *mp* *pp*

Pno. *mp* *pp* *mp* *pp* *mp* *pp* *mp* *pp*

30

Mar. *pp* *p* *pp* *p* *pp*

Vib. *mp* *pp* *mp* *pp* *mp* *pp* *mp* *pp*

Pno. *pp* *p* *pp* *p* *pp* *p* *pp* *p* *pp*

34

Mar.

Vib.

Pno.

mp *pp* *mp* *pp* *p*

pp *mp* *pp* *p*

pp *mp* *pp* *p*

pp *mp* *pp* *p*

p *pp*

p *pp*

p *pp*

p *pp*

38

Mar.

Vib.

Pno.

pp mp pp p pp pp mp pp p pp mp pp p pp mp pp p pp

[illegible]

[illegible][illegible]

58

Mar. *p pp mp > pp* *p > pp* *mp > pp* *p > pp* *mp > pp* *p > pp* *mp > pp* *p > pp*

Vib. *mp > pp* *mp > pp* *mp > pp* *mp > pp*

Pno. *p > pp* *mp > pp* *p > pp* *mp > pp* *p pp* *p pp* *mp > pp* *p > pp*

62

Mar. *mp > pp* *p > pp* *mp pp* *p > pp* *p > pp* *p* *p > pp* *p pp*

Vib. *mp > pp* *mp > pp* *mp > pp* *mp > pp*

Pno. *mp > pp* *p > pp* *mp > pp* *p > pp* *mp > pp* *p > pp* *mp > pp* *p > pp*

66

Mar. *p > pp* *p > pp* *p > pp* *p > pp* *p > pp* *p > pp* *p > pp* *p > pp*

Vib. *mp > pp* *mp > pp* *mp > pp* *mp pp*

Pno. *mp pp* *p > pp* *p > pp* *p > pp* *p > pp* *p > pp* *mp*

70

Mar. *p* > *pp* *p* > *pp* *p* > *pp* *p* > *pp* *p* *pp* *p* > *pp* *p* > *pp*

Vib.

Pno. *p* > *pp* *mp* > *pp* *p* > *pp* *mp* > *pp* *p* > *pp* *mp* > *pp* *p* > *pp* *mp* > *pp*

74

Mar. *p* > *pp* *p* > *pp* *p* > *pp* *p* > *pp*

Vib.

Pno. *p* > *pp* *mp* > *pp* *p* > *pp* *mp* > *pp* *p* > *pp* *mp* > *pp* *p* *pp* *mp* > *pp* *p*

78

Mar. *p* > *pp* *p* > *pp* *p* > *pp* *p* > *pp*

Vib.

Pno. *pp* *mp* > *pp* *p* > *pp* *mp* > *pp* *p* > *pp* *mp* > *pp* *p* > *pp* *mp* > *pp* *p* > *pp* *p*

[illegible]

93

Mar. *p* *>* *pp* *p* *>* *pp* *p* *>* *pp*

Vib.

Pno. *p* *>* *pp* *p* *>* *pp* *p* *>* *pp* *p* *>* *pp* *p* *>* *pp* *p* *>* *pp*

96

Mar. *p* *>* *pp* *p* *>* *pp* *p* *pp* *p*

Vib.

Pno. *p* *>* *pp* *p* *>* *pp* *p* *>* *pp* *p* *pp* *p* *>* *pp* *p*

99

Mar. *pp* *p* *>* *pp* *p* *>* *pp* *p* *>* *pp* *p* *>* *pp*

Vib. *pp* *p* *>* *pp* *p* *>* *pp* *p* *>* *pp* *p* *>* *pp*

Pno. *pp* *p* *>* *pp* *p* *pp* *p* *>* *pp* *p* *pp* *p* *>* *pp* *p* *pp*

102

Mar.

Vib.

Pno.

p *pp*

p *pp*

p *pp*

105

Mar.

Vib.

Pno.

p *pp*

p *pp*

p *pp*

108

Mar.

Vib.

Pno.

p *pp*

p *pp*

p *pp*

111

Mar.

Vib.

Pno.

114

Mar.

Vib.

Pno.

117

Mar.

Vib.

Pno.

120

Mar.

Vib.

Pno.

123

Mar.

Vib.

Pno.

126

Mar.

Vib.

Pno.

129

Mar.

Vib.

Pno.

132

Mar.

Vib.

Pno.

135

Mar.

Vib.

Pno.

138

Mar.

Vib.

Pno.

141

Mar.

Vib.

Pno.

145

Mar.

Vib.

Pno.