

**Gilberto Agostinho**

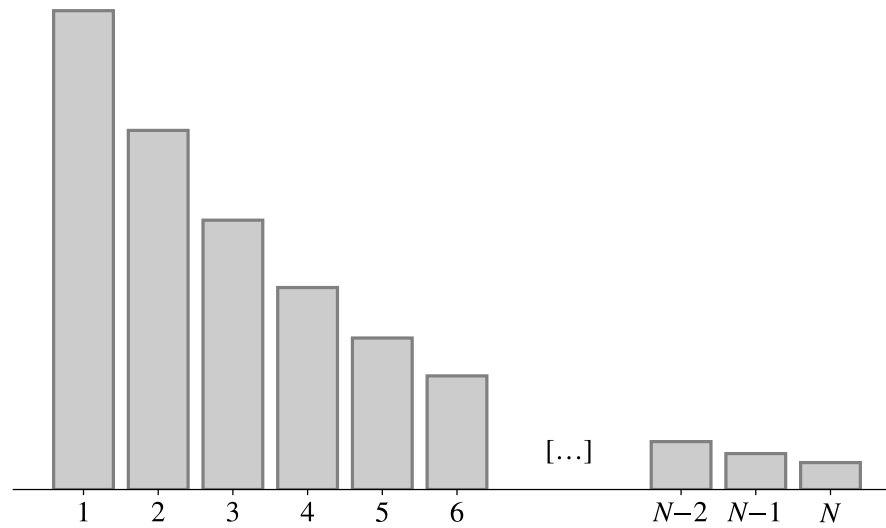
**Cartography #11**

for solo piano

**2018**



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



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

# Cartography #11, for solo piano

## Mapping and rules

### pitches

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set size	$N = 6$
transformation period	1 × bar (pre-loop)
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 within the instrument range defined as a constraint.
initial set	[C4, C#4, D4, Eb4, E4, F4]

### durations

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set size	$N = 5$
transformation period	2 × bars (pre-loop)
transformation mechanism	$[a, b, c, d, e] \rightarrow [b, c, d, e, f]$ , with $f = e - 1$ .
initial set	[12, 11, 10, 9, 8]


### articulations

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possibilities	$\{\emptyset, >, \wedge\}$ , where $\emptyset$ represents no articulation.
selection mechanism	the composition is made out of three voices, one for each type of articulation. These are then superimposed to create the final work.

### looping mechanism

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window size	16 ×  (post-loop)
shift size	semiquaver
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 process ends when the last note of the pre-looped music leaves the looping window.

### constraints

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- number of bars (pre-loop): 8.
  - range: C3–C7.
  - dynamic: *pp*

## General performance notes

- the piano's sustain pedal should be held half down throughout the piece. Some instruments and acoustic spaces might call for full pedalling, at the discretion of the performer.
- after the last note of the piece, let the resonance disappear before raising the sustain pedal.
- this piece has a single dynamic mark of *pp*. Variations in loudness are notated using solely marcato and martellato signs (*>* and *^*, respectively). Notes without articulations marks should be played as softly as possible (equivalent to *pp*), notes with a marcato sign should have a slightly louder level of loudness (equivalent to *mp*) and notes with a martellato sign should have a higher level of loudness (equivalent to *f*).

# Cartography #11

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♩ = ca. 66

Piano

1/2 *And.* → *pp*

Musical notation for measures 1-5, starting with a treble clef, a key signature of two flats (B-flat and E-flat), and a 4/4 time signature. The notation includes a half note rest followed by a half note, then a series of eighth notes with accents and slurs. The dynamic marking *pp* is indicated.

Musical notation for measures 6-10, continuing the piece with similar rhythmic patterns and accents.

Musical notation for measures 11-15, continuing the piece with similar rhythmic patterns and accents.

Musical notation for measures 16-18, continuing the piece with similar rhythmic patterns and accents.

Musical notation for measures 19-22, continuing the piece with similar rhythmic patterns and accents.

Musical notation for measures 23-27, continuing the piece with similar rhythmic patterns and accents.

Musical notation for measures 28-32, continuing the piece with similar rhythmic patterns and accents.

32

36

40

44

48

52

56

60

64

68

72

76

80



84



Musical staff 84: Treble clef, key signature of one sharp (F#). The staff contains a complex melodic line with many sixteenth and thirty-second notes, including grace notes and slurs. The rhythm is highly syncopated.

88



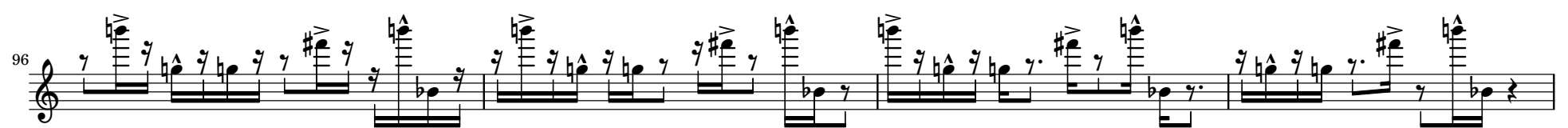
Musical staff 88: Treble clef, key signature of one sharp (F#). Continuation of the complex melodic line from staff 84, featuring intricate rhythmic patterns and slurs.

92



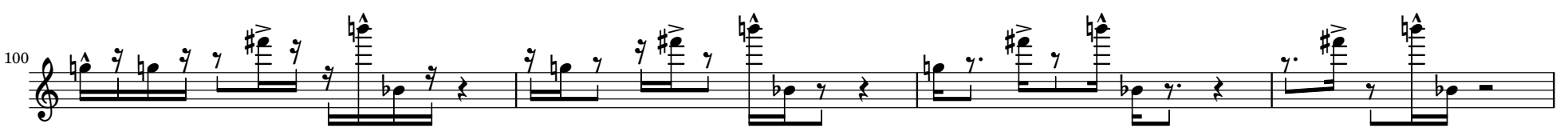
Musical staff 92: Treble clef, key signature of one sharp (F#). Continuation of the complex melodic line, showing a shift in phrasing and rhythmic emphasis.

96



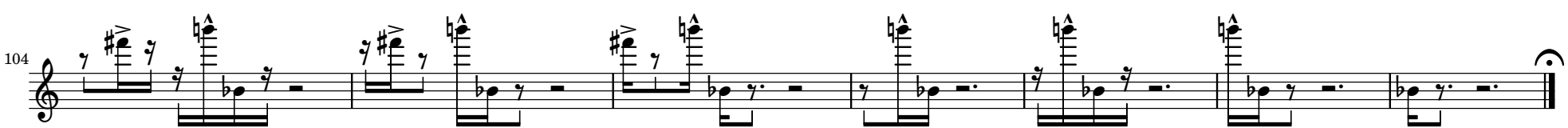
Musical staff 96: Treble clef, key signature of one sharp (F#). Continuation of the complex melodic line, with a notable change in the rhythmic density.

100



Musical staff 100: Treble clef, key signature of one sharp (F#). Continuation of the complex melodic line, showing a more spacious feel with longer note values.

104



Musical staff 104: Treble clef, key signature of one sharp (F#). Continuation of the complex melodic line, ending with a fermata over the final note.