

The rhythms I used in this composition are all derived from the Fibonacci sequence: 1 1 2 3 5 8 13 21 34...
Each musical phrase is composed with a melody and a rest. The relation between the length of this two elements, melody and rest, is strictly derived from the Fibonacci sequence. The lengths are measured in eight notes/rests or quarter notes/rests. The number of the length of the rest and the number of the length of the melody are always two following numbers of the Fibonacci sequence. The bigger number defines the length of the melody, the smaller number defines the length of the rest. For example: If the melody is 5 quarter long, the following rest has to be 3 quarter long. Because in the sequence after 3 comes 5. Or, if the melody is 34 eighths long, the following rest has to be 21 eighths long. Because after the number 21 comes 34. If the melody is 13 eighths long, the rest has to be 8 eighths long. And so on...

On the following are shown all different rhythms used in this composition.

The relation from the fibonacci sequence to the golden ratio:

The bigger the numbers in the sequence the closer the relation to the golden ratio from two consecutive numbers:

Sequence: 1 1 2 3 5 8 13 21 34... Golden Ratio: 1.618 = >

$1 / 1 = 1.000$	$8 / 5 = 1.600$
$2 / 1 = 2.000$	$13 / 8 = 1.625$
$3 / 2 = 1.500$	$21 / 13 = 1.615$
$5 / 3 = 1.667$	$34 / 21 = 1.619$

This was the initial idea of this composition:
To write musical phrases which are as close as possible to the golden ratio.

Afrobonacci

(Rhythm Analyze)

Fibonacci Sequence: 1 1 2 3 5 8 13 21 34 ...

INTRO PIANO & BASS

PIANO

BASS

3 => 2

5 => 3

3 => 2

PIANO MELODY

P

B

8 => 5

3 => 2

8 => 5

(A)

P

B

5 => 3

5 => 3

5 => 3

Musical score for measures 13-16. The score is written for Piano (P) and Bass (B) staves. Measure numbers 13, 14, 15, and 16 are indicated at the start of each measure. The key signature has two flats. Fingerings are indicated by numbers 1-5 above notes. Rhythmic patterns are shown with stems and flags. Boxed annotations indicate fingerings: $3 \Rightarrow 2$ and $5 \Rightarrow 3$.

Musical score for measures 17-20. The score is written for Piano (P) and Bass (B) staves. Measure numbers 17, 18, 19, and 20 are indicated at the start of each measure. A circled '8' is in a box at the beginning of measure 17. Fingerings are indicated by numbers 1-5 above notes. Rhythmic patterns are shown with stems and flags. Boxed annotations indicate fingerings: $8 \Rightarrow 5$, $1 \Rightarrow 1$, $2 \Rightarrow 1$, and $3 \Rightarrow 2$.

Musical score for measures 21-24. The score is written for Piano (P) and Bass (B) staves. Measure numbers 21, 22, 23, and 24 are indicated at the start of each measure. Fingerings are indicated by numbers 1-5 above notes. Rhythmic patterns are shown with stems and flags. Boxed annotations indicate fingerings: $8 \Rightarrow 5$. A box labeled "PIANO MELODY" is placed above the piano staff in measure 24.

HOONS BACKGROUND $5 \Rightarrow 3$ $3 \Rightarrow 2$

PIANO MELODY

25

25

25

Detailed description: This block contains the first system of a musical score, measures 25 through 28. It features three staves: Horns (H), Piano (P), and Bass (B). The Horns staff has a treble clef and a key signature of two flats. It contains a background melody with notes and rests, and a box labeled 'HOONS BACKGROUND' with a '5 => 3' transition. Above the staff are brackets indicating groupings of notes: a 5-measure group, a 3-measure group, another 3-measure group, and a 2-measure group. A '3 => 2' transition box is placed above the final two measures. The Piano staff has a treble clef and contains a melody with notes and rests, and a box labeled 'PIANO MELODY'. Above the staff are brackets for a 5-measure group and a 3-measure group. A '5 => 3' transition box is placed below the staff between measures 26 and 27. The Bass staff has a bass clef and contains a melody with notes and rests, and a '5 => 3' transition box is placed below the staff between measures 26 and 27. Measure numbers 25, 25, and 25 are written at the beginning of the Horns, Piano, and Bass staves respectively.

$5 \Rightarrow 3$ $3 \Rightarrow 2$

29

29

29

Detailed description: This block contains the second system of a musical score, measures 29 through 32. It features three staves: Horns (H), Piano (P), and Bass (B). The Horns staff has a treble clef and a key signature of two flats. It contains a background melody with notes and rests, and a '5 => 3' transition box above the staff between measures 29 and 30. Brackets above the staff indicate groupings of notes: a 5-measure group, a 3-measure group, and another 3-measure group. A '3 => 2' transition box is placed above the final two measures. The Piano staff has a treble clef and contains a melody with notes and rests, and a '5 => 3' transition box below the staff between measures 30 and 31. Brackets above the staff indicate groupings of notes: a 5-measure group, a 3-measure group, and an 8-measure group. The Bass staff has a bass clef and contains a melody with notes and rests, and a '5 => 3' transition box below the staff between measures 30 and 31. Brackets above the staff indicate groupings of notes: a 5-measure group, a 3-measure group, and an 8-measure group. A '8 => 5' transition box is placed below the staff between measures 29 and 30. Measure numbers 29, 29, and 29 are written at the beginning of the Horns, Piano, and Bass staves respectively.

Musical score for measures 33-36, featuring three staves (H, P, B) and various rhythmic annotations.

Measure 33: H (2 7), P (5 7), B (5 7). Annotation: 8 => 5.

Measure 34: H (8), P (5), B (5). Annotation: 8 => 5.

Measure 35: H (5), P (5), B (5). Annotation: 5 => 3.

Measure 36: H (5 7), P (3 7), B (3 7). Annotation: 5 => 3.

Musical score for measures 37-40, featuring three staves (H, P, B) and various rhythmic annotations.

Measure 37: H (3), P (3), B (3). Annotation: 3 => 2.

Measure 38: H (2 7), P (2 7), B (2 7). Annotation: 3 => 2.

Measure 39: H (1), P (8), B (8). Annotation: 8 => 5.

Measure 40: H (1 7), P (5 7), B (5 7). Annotations: 1 => 1, 2 => 1, 8 => 5.

HORNS MELODY

E

41

41

41

8 \Rightarrow 5

3 \Rightarrow 2

2

5 \Rightarrow 3

8 \Rightarrow 5

3 \Rightarrow 2

3 \Rightarrow 2

3 \Rightarrow 2

45

45

45

3 \Rightarrow 2

13 \Rightarrow 8

5 \Rightarrow 3

2 \Rightarrow 1

5 \Rightarrow 3

3 \Rightarrow 2

5 \Rightarrow 3

2 \Rightarrow 1

5 \Rightarrow 3

3 \Rightarrow 2

49

F

8₄

1₄ 1₄ 1₄ 1₄ 3₄ 2₄ 5₄

2₄ 3₄ 2₄ 1₄ 1₄ 1₄ 3₄ 2₄ 1₄ 1₄

2₄ 3₄ 2₄ 1₄ 1₄ 1₄ 3₄ 2₄ 1₄ 1₄

3=>2 1=>1 1=>1 3=>2 1=>1

3=>2 1=>1 1=>1 3=>2 1=>1

53

5=>3

3₄ 2₄ 1₄ 2₄ 1₄ 2₄ 1₄

1₄ 1₄ 1₄ 1₄ 1₄ 1₄ 2₄ 1₄ 2₄ 1₄

1=>1 1=>1 1=>1 2=>1 2=>1

1₄ 1₄ 1₄ 1₄ 1₄ 1₄ 2₄ 1₄ 2₄ 1₄

1=>1 1=>1 1=>1 2=>1 2=>1

INTERLUDE: HORNS & PIANO UNISONO

G
57
1 1 2 1 3 2 5 3 8
1 => 1 2 => 1 3 => 2 5 => 3 8 => 5

61
5 13 8
13 => 8

H
65
21
21 => 13

69
13 34
21 => 13 34 => 21

73
34 => 21

77
21
34 => 21