

On the Chair of the Universe, a Beetle-shaped Glass Buckles

by

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of the Requirements for the Degree
Masters in Music Composition

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ABSTRACT

This composition was commissioned by the Orgelpark to be performed in Amsterdam in September 2011 during Gaudeamus Muziekweek. It will be performed by the vocal group VocaalLab Nederland. It is scored for four vocalists, organ, tanpura, and electronic sound. The work is a culmination of my studies in South Indian Carnatic rhythm and North Indian classical performance. It is a meditation on the idea that the drone and pulse are micro/macro aspects of the same phenomenon of vibration. Cycles are created on the macroscale through a mathematically defined scale of harmonic/pitch relationships. Cycles are created on the microscale through the subdivision and addition of rhythmic pulses. My aim is to capture the most beautiful elements of two ancient styles of music in a 21st century context.

Performance Notes

This composition is an aid to meditation for both performer and listener.

Organ, tanpura, and sine waves contribute to a continuous, all-encompassing kaleidoscopic drone throughout.

The four singers sit cross-legged in a semi-circle, surrounded by tanpura, speakers, and organ.

The four voices imitate the purity of sustained sine waves and old rudra veenas; no vibrato.

There is a great emphasis on harmonic intonation and clock-like rhythmic precision.

The tanpura and sine waves are tuned to the organ (G and C).

Bass sings solo in a relaxed, dhruwad style.

Duration: 10 minutes.

Scale

The intonation of pitches is defined in terms of whole number ratios, or just intonation:

	ratio	cents	interval name
G	1:1	0	unison
Bb	7:6	267	septimal minor 3rd
C	4:3	498	perfect 4th
Eb	14:9	765	septimal minor 6th
F	7:4	969	septimal minor 7th

The 7:4 interval occurs between G - F and C - Bb (31 cents flatter than eq. temp.)

The 7:6 interval occurs between G - Bb and C - Eb (31 cents flatter than eq. temp.)

Tanpura

The tanpura is played traditionally as a constant drone on the pitches: C - G - G - G

The tanpura begins and ends the piece.

Amplified sine waves

Two large speakers are placed on both sides of the vocal quartet.

Pre-recorded soundtracks consisting of sine wave drone textures and a metronome are provided by the composer.

The drone textures begin and end the piece with the tanpura; it is played softly, blending with organ and tanpura.

The metronome is triggered live at key points in the score by the sound engineer.

Rhythmic syllables

Rhythmic groupings are sung by the sopranos and alto on the following syllables, unless written otherwise:

2 eighth notes	ta - ke
3 eighth notes	ta - ki - te
4 eighth notes	ta - ke - di - mi
5 eighth notes	ta - ke - ghi - na – ton
6 eighth notes	ta - ke - di - mi - ta - ke
7 eighth notes	ta - ke - di - mi - ta - ki - te

The syllable *ta* always creates an accent.

Accents are always brought to the foreground while the other syllables remain un-accentuated in the background.

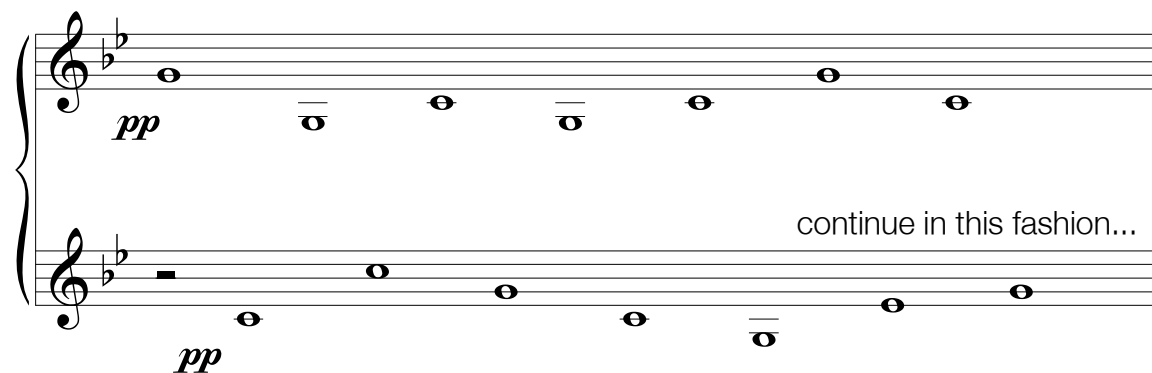
organ

the great brain unfolding behind moonlit clouds
ancient deity responding to voices with enigmatic pronouncements

The organ part consists of an improvised drone, 2 interludes and a brief conclusion.
The drone is always present in the background, softly filling the space, blending with tanpura and sine waves.
All parts are improvised, and it is up to the performer to find the most interesting and colorful stops on the organ.
A bell may be used to signal the organist before interludes if necessary.
During the interludes the soft 16' or 32' pedal stops should be used.
The drone should stay in the mid to high registers.
Pitches to play with: G, C, F, Bb, Eb

The organ begins and ends the piece with the tanpura and sine waves.

The drone is played very slowly (1 whole note = 17 seconds); overlegato.

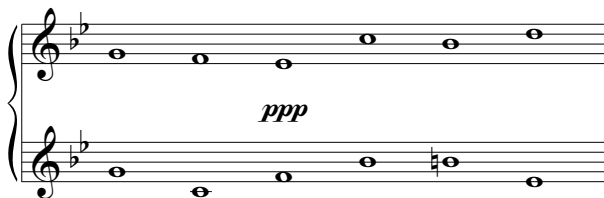


alap

macrocycles
in harmonic synchrony with the drone

Soprano 1 and Alto improvise long sustained tones, each the length of a breath.
Pitches appear in order of emphasis; use freely, any octave.
Communicate and create delicate textures, blending in and out of the surrounding drones.
Fade out slowly when first organ interlude begins.

Soprano 1

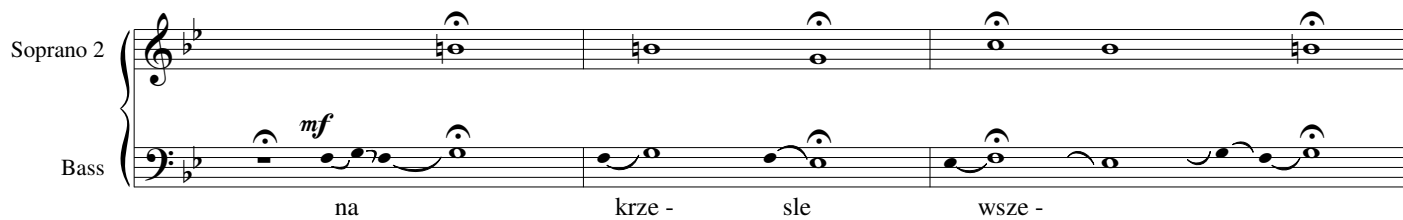


Alto

ppp

Each phrase/measure below is a single, full breath.
Bass: most pitches are approached with expressive glissandi
Whole notes indicate important and sustained pitches.
Soprano 2 sings each pitch with the dynamic shape: $\circ < pp > \circ$
Sopranos and Alto may choose vowel shapes.

Soprano 2



Bass

mf

na krze - sle wsze -

4

Soprano 2

Bass

wsze - chswia - ta szkło

8

Soprano 2

Bass

w kształ - cie chrz - szcza

12

Soprano 2

Bass

wy - krzy - wia się

organ interlude 1 (30 seconds)

metronome begins after organ interlude
articulate syllables softly, slur together
always bring accents to foreground
with expressive, clock-like precision

wheels within wheels

microcycles
in harmonic synchrony with the pulse

5 ♩ = 54

metronome

Soprano 1

Soprano 2

Alto

20

20

A

B

ta ki te ta dim (simile...)

ta ke ghi na ton ta ke ghi na ton ta

ta ta ta ta ta ta

ke di mi ta ke di mi ta ki ke ki te ke ke

x8 x7

The musical score is written for a metronome and four vocal parts: Soprano 1, Soprano 2, Alto, and Bass. The key signature is B-flat major (two flats). The tempo is marked as 5 quarter notes = 54. The score begins with a metronome line, followed by the vocal parts. Soprano 1 and Alto have lyrics, while Soprano 2 and Bass have rhythmic patterns. The score includes a 20-measure section and a final section with repeat signs and multi-measure rests (x8 and x7). The lyrics for Soprano 1 are 'ta ki te ta dim (simile...)'. The lyrics for Soprano 2 are 'ta ke ghi na ton ta ke ghi na ton ta'. The lyrics for Alto are 'ke di mi ta ke di mi ta ki ke ki te ke ke'. The lyrics for Bass are 'ta ta ta ta ta ta'.

25

x5

x4

x3

S 1

ta ta ta ta ta ta ta ta ta ta ta ta ta ta ta ta ta ta ta ta

S 2

ta te ki ta ta ke te ki ta te te ta ke te ki ta te ki ki ke ke ke

A

ki te ki te ke ke ki te ki ki ke ke ke ki ta te ki ki te ta te ta ke ta ke

B

28

x2

x2

S 1

ta dim (simile...) ta ke ghi na ton

S 2

ta ke ghi na ton ta ke ghi na ton

A

ta ki ghi na ton ta ki te

B

alto: sing 4-tuplet only on the repeat

32

x6 x3 x4

S 1

ta ta ta ta ta ta ta ta ta ta ta ta ta ta ta ta ta ta

S 2

ta ki ta ki ta ki ta ki ta ke te ki ta ke te ki ta ke ta ki ki ta te ki

A

ke te ke te ke te ke te ke ki te ke ki te ke ta ke ke te ta te ki te te

B

ta ki te ta ki te ta ke ghi na ton

metronome off after
downbeat of m.36

35

S 1

ta ke di mi (simile...) ta

S 2

(ta ki te) (ta ke) (ta dim) (use same syllable/rhythm groupings...) ta

A

ta ki te (simile...) ta

B

ta ki te ta ke di mi ta ki te ta ke di mi ta ki te ta

organ interlude 2 (20-30 seconds)

7♩ = 46

cloudlike, light and fluffy
alto prepares singers for m.59 by counting two 7-tuplet groups

37

S 1

S 2

A

p

metronome begins shortly after m. 38
singers begin when ready
sop 2 gives cue to begin m. 40

38

7♩ = 46

x6

x4

x4

x3

S 1

S 2

A

B

ta dim ta ke ta ke ta ki te ta ki te ta ke di mi ta ke di mi

dim ta ta ke ta ke ta ki te ta ki te ta ke di mi ta ke di mi

(ta ke)

44

x3

x3

S 1

ta ke ghi na ton ta ke ghi na ton ta ke di mi ta ke ta ke di mi ta ke

S 2

ta ke ghi na ton ta ke ghi na ton ta ke di mi ta ke ta ke di mi ta ke

A

(ta ke ghi na ton)

B

softer

46

x2

x2

S 1

ta ke di mi ta ki te ta ke di mi ta ki te

S 2

ta ke di mi ta ki te ta ke di mi ta ki te ta ki te

A

ta ke (simile...)

B

bass sings only the first time

48 cresc. x2

S 1 sop 1: sing 4-tuplet only on the repeat

(ta) ke di mi ta ki te

S 2

ta ke di mi ta ki te ta ke di mi ta ki te

A

ta ke di mi ta ki te

B

51 louder x2

S 1

ta dim (simile...)

S 2

dim ta (simile...)

A

ta ke di mi ta ki te

B

