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...who can recall the past lives..., for large ensemble

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...who can recall the past lives..., for large ensemble

By

Thatchatham Silsupan

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor Philosophy

in

Music

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Ken Ueno, Chair

Professor Edmund Campion

Professor Cindy Cox

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## Abstract

...who can recall the past lives..., for large ensemble

By

Thatchatham Silsupan

Doctor of Philosophy in Music

University of California, Berkeley

Professor Ken Ueno, Chair

...who can recall the past lives... is a musical composition for large mixed ensemble with optional amplification. The work explores the idea of translating a personal aesthetic of transformation, reincarnation and hybridity into music.

In this work, different types of harmonic materials, such as spectral, microtonal, and equal-tempered harmonies, are superimposed and juxtaposed while transforming as they constantly move into each other's harmonic domain. Pure sounds and complex sounds also intertwine with instrumental sounds and real sounds from the world, thus creating a kind of sonic hybridity. Sonic materials are also composed in such a way that, strangely, they are reincarnated.

...who can recall the past lives... is inspired by the film “Uncle Boonmee Who Can Recall His Past Lives” of Apichatpong Weerasethakul.

### Notes on composition

Feature films such as “Mysterious Object at Noon,” “Blissfully You,” and the internationally acclaimed “Tropical Malady” by Thai director Apichatpong Weerasethakul move away from mainstream cinema and show us innovative style, technique, and narration in cinematic art-making. I was fascinated by his approach to spiritual existence as it was intersected and projected through the screen.

Discovering the film “Uncle Boonmee Who Can Recall His Past Lives” was life changing to me as an artist. The film was inspired by the book *A Man Who Can Recall His Past Lives* and written by an author known only as “Boonmee.” In his final days, the protagonist Boonmee witnesses his past lives as a series of living creatures. The narrative elements of the film concern hybridity and the coexistence of variant forms of life including humans, animals, and mythical creatures such as an old princess, a monstrous hybrid man/monkey, a talking catfish, and others. I was interested in the theme that all forms of life are inextricably intertwined (a principle in Buddhism and reincarnation), as well as the idea of the boundless transformative properties of a wandering soul in the afterlife.

Inspired by the narration of the film, I attempted to translate the actions of the ‘transformative,’ ‘reincarnated,’ and ‘hybrid’ into music. My composition, titled with a similar name, is constructed with a variety of spectral, microtonal, and equal-tempered harmonic materials that are constantly moving into each other’s harmonic domain. Pure sounds and complex sounds also intertwine, creating a kind of sonic hybridity. Sonic materials are also composed so that, strangely, they are reincarnated.

“...who can recall the past lives...” is composed for eighteen musicians and is approximately fifteen minutes in duration. Optionally, it requires amplification which radically alters the ensemble’s timbre.

### **Instrumentation:**

2 Bass Flutes

2 Bass Clarinets

2 Bass Trombones

2 Percussionists (identical set for both players—except Thai gongs):

Tamtam (prepared with aluminium foil)

Suspended cymbal (prepared with aluminium foil)

2 Thai gongs (pitches should be different for both players)

Bass Drum

Large Gong

Crotales (2 octaves, C5-C7)

Unconventional objects: D.B. bow

Piano

Unconventional objects: aluminium foil, glass (with flat-base), wire brush,  
compact disc player

4 Violins

2 Violas

2 Cellos

Double Bass

Unconventional objects (for strings): aluminium foil

### **Groups & Spacing:**

Group 1: Bass Flute 1, Bass Clarinet 1, Bass Trombone 1, Violin 1, Violin 3, Viola 1, Cello 1

Group 2: Percussion 1, Percussion 2, Piano, Double Bass

Group 3: Bass Flute 2, Bass Clarinet 2, Bass Trombone 2, Violin 2, Violin 4, Viola 2, Cello 2

### **Amplification:**

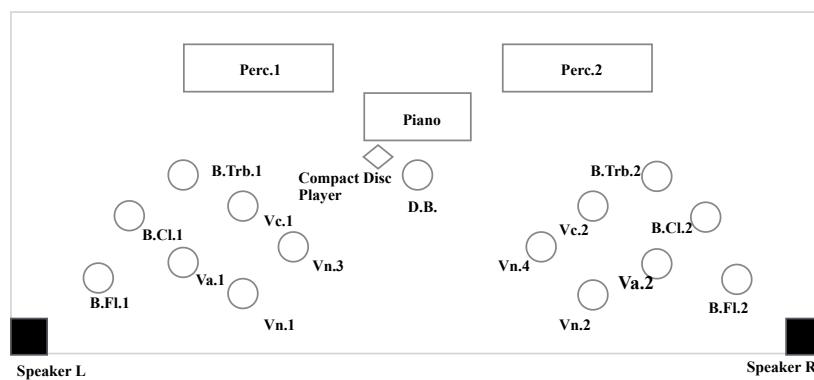
- Amplification is optional.
- For non-amplified situation, the Bass Flutes are always amplified and the speakers should be placed as close to musicians as possible.
- Panning to stereo channels are corresponded to the instruments' position on stage.
- The amplification is applied in order to achieve radical timbre's alteration.

### **Equipment:**

- microphones as necessary to amplify (included compact disc player)

- mixer, 32 XLR inputs

- 2 speakers on stage



## Notes on performance

### General:

#### Oscillation:

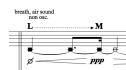
- "Oscillation" is used throughout the piece as rhythmic pulsation instead of "classical vibrato".
- *[osc. very slow]* = 1 oscillation per beat, *[osc. slow]* = 2 oscillation per beat, *[osc. med.]* = 3-4 oscillation per beat, *[osc. fast]* = 5-6 oscillation per beat, and *[osc. very fast]* = 7 or more oscillation per beat

#### Speed of activity:

- changing the speed of gestural activity; for instance, the speed of tremolo or indicated movement
- The dotted line indicates changing from one state to another. It is also applied to other timbral transformation.



### For Winds:



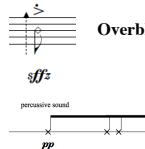
**Breath, air sound:** Blow into the instrument without pitch. The letters **L** (low), **M** (medium), and **H** (high) are referring to timbral register changed by adjusting the oral cavity.



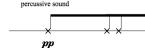
**With Voice:** Singing and playing at the same time.



**Multiphonics:** Over blown pitches and fingerings are at the discretion of the performer. However, written fundamental note should be sounded. In a situation when it is written with an arrow, the performer should try to get the highest over blown pitches as much as possible. For Bass Flutes, some multiphonics are fully written with fingerings (taken from Pierre-Yves Artaud's "Present Day Flutes").



**Overblowing:** Play the highest note on the instrument as much as possible by producing harmonic.



**Percussive sound:** (for Bass Trombone); Producing various non-pitched percussive sounds at the discretion of the performer.

### For Percussions:



**Preparation on Tamtam & Cymbal:** Tamtam & Cymbal should be partly wrapped with a piece of aluminium foil so that the aluminium foil is always resonating against the instrument's body.



**Circular movement:** Scrape the surface of indicated instrument in circular motion (usually with wire brush).

**Bowing Crotales:** Beginning at measure 113, Crotales are bowed with D.B. bow. Depending on musical phrases, bow direction can be changed at the discretion of the performer. However, the sound should be constantly resonating.

**Choosing mallets:** In any places where mallets are not indicated, the performer should use certain types of mallet that fit to the context of instrument. For instance, using Gong mallet for Thai gong.

### For Piano:

**Pedal:** Sustained pedal should be stepped on for the entire piece. It is also possible to put a heavy object on the pedal as well.

**Lid:** The lid should remain off for the entire piece.

**Preparation with aluminium foil:** Pieces of aluminium foil should be scattered on the area of lowest register inside the Piano. The aluminium foil should be always resonating with the strings.



**With Brush:** Scrape the strings with wire brush at the area of lowest register.



**Hand's strumming:** Strum the strings at the area of lowest register quickly as much as possible.

### Glass:



1. Rotate a glass from side to side on the low strings (indicated "circular motion").



2. Scrape along the low strings up and down firmly with the bottom of glass (indicated "vertical motion"). By pressing the glass firmly against the low strings, which is also corresponded to dynamic, it should create a high raspy sound with overtones.

**Preparation with Blu-Tack:** Put the Blu-Tack on the strings (lower staff) to obtain the written harmonics (upper staff).



**Compact Disc Player:** A compact disc player with internal or extended speaker should be placed as close as possible to the pianist (see the diagram on the instrumentation's page). The compact disc should contain a pre-recorded sound of any quiet and noisy environmental sound approximately 2 minutes 20 seconds in duration, with the sound being faded away toward the end. The sound file can be obtained from the composer or recorded by the performer. Beginning at measure 112, the performer press a button to turn on the compact disc player. In non-amplified situation, the volume of the compact disc player should be balanced with the overall dynamic of the ensemble.

### For Strings:

#### Bow placement:

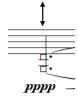
a.s.t.	:	alto sul tasto
s.t.	:	sul tasto
ord.	:	ordinary
s.p.	:	sul ponticello
a.s.p.	:	alto sul ponticello



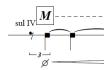
**Scratch Tone:** Increasing bow pressure to obtain non-pitched and noisy sound.



**Breath, air sound:** Mute the strings with left hand while bowing. It should create sound that is akin to "white noise".



**Vertical Bowing:** Bow the indicated string in vertical direction while muting the strings with (from a position ‘close to the left hand’ to ‘near the bridge’). The changing of bow’s direction is at the discretion of the performer.



**Multiphonics:** Find a place on the indicated string (usually slightly above or below a harmonic node) to produce a multiphonic sound.

**On the bridge:** Bow exactly on the bridge so that it creates non-pitched and noisy sound.

**Con sord. aluminium foil:** At measure 145, use aluminium foil to mute the strings at bridge’s position. It should create raspy metallic sound. For all strings—except the Double Bass, it is possible to begin to mute the strings at the beginning of measure 139. For Double Bass, the strings should be muted with aluminium foil for the entire piece.



**Scordatura on Double Bass:** The low E should be tuned down to low C for the entire piece.

Other unconventional notation and extra explanation is written in the score.

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Score in C

*...who can recall the past lives...*

**Extremely slow, immaterial**  $\text{♩} = 40$

c. 12" - 15"

Breath, air sound non osc. L. M. H.

**Thatchatham Silsupan**

Group 1

Bass Flute 1, Bass Clarinet 1, Bass Trombone 1, Violin 1, Violin 3, Viola 1, Cello 1

Group 2

Percussion 1, Percussion 2, Piano, Double Bass

Group 3

Bass Flute 2, Bass Clarinet 2, Bass Trombone 2, Violin 2, Violin 4, Viola 2, Cello 2

\*N.B. scordatura: low E to C throughout / con sord. with aluminum foil

poco rit. .....  $\bullet = 35$  c.6" - 8"

5

B. Fl. I

B. Cl. I

B. Tbn. I

Vn. 1

Vn. 3

Va. 1

Vc. 1

Perc. 1

Perc. 2

Pno.

D.B.

B. Fl. 2

B. Cl. 2

B. Tbn. 2

Vn. 2

Vn. 4

Va. 2

Vc. 2

roll with soft mallets / resonating with aluminium foil

Tamtam

scrape with brush / strings are resonating with aluminium foil

breath air sound. I. osc slow

a.s.p.

pec. very slow



13

accel. .....  $\text{♩} = 52 / \text{♩} = 40$  rit. .....  $\text{♩} = 30$

B. Fl. 1 pan osc. L. osc. very fast H.  $\text{♩}$   
B. Cl. 1 non osc. L. osc. very fast H.  $\text{♩}$   
B. Tbn. 1 pppp osc. very fast H.  $\text{♩}$   
Vn. 1 ord. osc.  $\text{♩}$   
Vn. 3  $\text{♩}$   
Va. 1  $\text{♩}$   
Vc. 1  $\text{♩}$   
  
Perc. 1  $\text{♩}$  PP  $\text{♩}$  PPP  $\text{♩}$  P  $\text{♩}$   
Perc. 2  $\text{♩}$  P  $\text{♩}$  PPP  $\text{♩}$  P with brush strum the strings with hand  
Pno.  $\text{♩}$   $\text{♩}$  PPPP  $\text{♩}$  PPP  $\text{♩}$   $\text{♩}$   $\text{♩}$   
D.B.  $\text{♩}$  pp  $\text{♩}$   
  
B. Fl. 2 non osc. L. osc. very fast H.  $\text{♩}$   
B. Cl. 2 non osc. L. osc. very fast H.  $\text{♩}$   
B. Tbn. 2 p non osc. L. osc. very fast H.  $\text{♩}$   
Vn. 2 a.s.t. ord. osc.  $\text{♩}$   
Vn. 4  $\text{♩}$   
Va. 2  $\text{♩}$   
Vc. 2  $\text{♩}$

$\bullet = 48$

[17]

B. Fl. I  
osc. very slow..... osc. very fast..... med.

B. Cl. I  
osc. very slow  
 $\text{pp}$  [-] irregular pitch oscillation

B. Tbn. I  
 $\text{ppp}$  f

Vn. 1  
vertical bowing / breath, air sound  
 $\text{pppp}$  p

Vn. 3  
vertical bowing / breath, air sound  
 $\text{pppp}$  p

Va. 1

Vc. 1

Perc. 1  
with brush

Perc. 2  
 $\text{PPP}$   $\beta$  p

Pno.  
use a flat-bottom glass circular motion / extremely slow movement

D.B.

B. Fl. 2  
osc. very slow..... L

B. Cl. 2  
osc. very slow  
 $\text{pp}$  [-] irregular pitch oscillation

B. Tbn. 2

Vn. 2  
vertical bowing / breath, air sound

Vn. 4  
vertical bowing / breath, air sound

Va. 2

Vc. 2

21

B. Fl. 1  
... osc. med.

B. Cl. 1  
< p

B. Tbn. 1  
β

Vn. 1  
vertical bowing / breath, air sound

Vn. 3  
β

Va. 1  
vertical bowing / breath, air sound

Vc. 1  
vertical bowing / breath, air sound

H

Perc. 1  
Perc. 2  
Pno.  
D.B.

B. Fl. 2  
f  
... osc. med.

B. Cl. 2  
< p

B. Tbn. 2  
L  
f

Vn. 2  
pppp

Vn. 4  
β

Va. 2  
vertical bowing / breath, air sound

Vc. 2  
vertical bowing / breath, air sound

osc. very fast

nfp ppstab. β

nfp ppstab. β

sfp ppstab. pppp

behind the bridge

nfp ppstab.

behind the bridge

nfp ppstab.

behind the bridge

nfp ppstab.

behind the bridge

scratches the surface with wooden stick (another side of mallet) in circular motion

pizz. mfuh. arco a.s.t. osc. very slow

β

osc. very fast

β

β

nfp ppstab.

behind the bridge

nfp ppstab.

behind the bridge

nfp ppstab.

behind the bridge

nfp ppstab.

25       $\text{♩} = 54$

B. Fl. 1       $\frac{2}{4}$       fragile sound / do not tune with B Fl. 1       $\frac{2}{4} \frac{3}{4} \frac{4}{5} \frac{5}{6}$

B. Cl. 1

B. Tbn. 1      osc. very slow      with voice       $\text{p} \text{ ppp}$

Vn. 1

Vn. 3

Va. 1

Vc. 1

Perc. 1       $\frac{2}{4}$       **[Thai Gong]**       $\text{pp}$

Perc. 2       $\frac{2}{4}$       **[Thai Gong]**       $\text{pp}$

Pno.

D.B.       $\frac{2}{4}$       use flat-bottom glass / vertical motion / extremely slow movement       $\text{p} \text{ ppp}$

$\downarrow$

B. Fl. 2       $\frac{2}{4}$       fragile sound / do not tune with B Fl. 1       $\frac{2}{4} \frac{3}{4} \frac{4}{5} \frac{5}{6}$

B. Cl. 2

B. Tbn. 2      osc. very slow      with voice       $\text{p} \text{ ppp}$

Vn. 2      noise pizz.       $\text{p} \text{ ppp}$

Vn. 4      noise pizz.       $\text{p} \text{ pp}$

Va. 2      noise pizz.      sal III       $\text{p} \text{ ppp}$

Vc. 2

[29]

This musical score page contains three systems of staves, each with multiple parts and specific performance instructions.

**Top System:**

- B. Fl. 1:** Dynamics include *mf*, *p*, and *pppp*.
- B. Cl. 1:** Dynamics include *mf*, *f*, and *p*.
- B. Tbn. 1:** Dynamics include *p*, *pp*, *osc. med.*, and *very slow*.
- Vn. 1:** Dynamics include *p* and *noise pizz.*
- Vn. 3:** Dynamics include *p* and *noise pizz.*
- Va. 1:** Dynamics include *ppp*, *p*, and *noise pizz.*
- Vc. 1:** Dynamics include *ppp*.

**Middle System:**

- Perc. 1:** Staccato eighth-note patterns.
- Perc. 2:** Staccato eighth-note patterns.
- Pno.:** Dynamics include *mf*, *f*, and *p*. Instructions: *increase pressure / get overtones*, *osc. very slow*, *osc. slow*, *a.s.t.*, *non osc.*, and *osc. very slow*.
- D.B.:** Dynamics include *mf*, *p*, and *pppp*.

**Bottom System:**

- B. Fl. 2:** Dynamics include *mf*, *p*, and *pppp*.
- B. Cl. 2:** Dynamics include *mf*, *f*, and *p*.
- B. Tbn. 2:** Dynamics include *ppp*, *p*, and *osc. med.*.
- Vn. 2:** Dynamics include *pppp*, *p*, and *ppp*.
- Vn. 4:** Dynamics include *p*, *pp*, *p*, and *ppp*.
- Va. 2:** Dynamics include *ppp*, *p*, and *pppp*.
- Vc. 2:** Dynamics include *p*.

33

rit. ..... = 40

B. Fl. 1      **M**  
*fragile sound / do not tune with B. Fl. 2*

B. Cl. 1      **M**  
*fragile sound / do not tune with B. Cl. 2*

B. Tbn. 1  
*osc. slow ..... osc. very fast ..... osc. very slow*

Vn. 1      *behind the bridge arco battuto*  
*p pp p*

Vn. 3      *behind the bridge arco battuto*  
*p pp pp pp*

Va. 1      *behind the bridge arco battuto*  
*p pp pp pp*

Vc. 1      *behind the bridge arco battuto*  
*p pp pp pp*

Perc. 1      *Tamtam*  
*roll with mallets*  
*p pp p*

Perc. 2      *Bass Drum*  
*p pp p*

Pno.  
*ord.*

D.B.  
*p pp pp pp*

B. Fl. 2      **M**  
*fragile sound / do not tune with B. Fl. 1*

B. Cl. 2      **M**  
*fragile sound / do not tune with B. Cl. 2*

B. Tbn. 2  
*osc. very slow ..... osc. very fast ..... osc. very slow*

Vn. 2      *behind the bridge arco battuto*  
*p pp pp pp*

Vn. 4      *behind the bridge arco battuto*  
*p pp pp pp*

Va. 2      *behind the bridge arco battuto*  
*p pp pp pp*

Vc. 2      *behind the bridge arco battuto*  
*p pp pp pp*

37

**B. Fl. 1**

**B. Cl. 1**

**B. Tbn. 1**

**Vn. 1**  
behind the bridge  
arco ord.

**Vn. 3**  
behind the bridge  
arco ord.

**Va. 1**

**Vc. 1**

**Perc. 1**

**Perc. 2**  
[Tamtam]

**Pno.**

**D.B.**

**B. Fl. 2**

**B. Cl. 2**

**B. Tbn. 2**

**Vn. 2**  
behind the bridge  
arco ord.

**Vn. 4**  
behind the bridge  
arco ord.

**Va. 2**

**Vc. 2**

c. 6" - 8"

c. 10"

= 48

overblow / get highest overtone

extreme bow pressure / noise only

scrape the surface with wooden stick  
(another side of mallet) in circular motion

overlap

$\bullet = 42$

**41**

This page contains two systems of musical notation, each consisting of ten staves. The top system begins with a dynamic of  $p$  and includes instruments such as Bassoon 1, Clarinet 1, Bassoon 1, Violin 1, Violin 3, Viola 1, and Cello 1. The bottom system begins with a dynamic of  $p$  and includes instruments such as Bassoon 2, Clarinet 2, Bassoon 2, Violin 2, Violin 4, Viola 2, and Cello 2. Both systems feature various performance instructions like "percussive sound", "on the bridge breath, air sound", "osc. very slow", and "detaché speed". The score also includes parts for Percussion 1, Percussion 2, Piano, and Double Bass. The time signature for both systems is  $\frac{2}{4}$ .

B. Fl. 1  
B. Cl. 1  
B. Tbn. 1  
Vn. 1  
Vn. 3  
Va. 1  
Vc. 1

Tam tam  
scope with brush in circular motion / slow movement

Perc. 1  
Perc. 2  
Pno.  
D.B.

B. Fl. 2  
B. Cl. 2  
B. Tbn. 2  
Vn. 2  
Vn. 4  
Va. 2  
Vc. 2





poco accel. .....  $\bullet = 48$

$\frac{2}{3} \frac{4}{5}$  osc. slow

**53**

B. Fl. I

B. Cl. I

B. Tbn. I

Vn. 1

Vn. 3

Va. 1

Vc. 1

Perc. 1

Perc. 2

Pno.

D.B.

B. Fl. 2

B. Cl. 2

B. Tbn. 2

Vn. 2

Vn. 4

Va. 2

Vc. 2

♩ = 54 sub.

**57**

B. Fl. 1      osc. med.      osc. very fast  
B. Cl. 1      osc. slow [M]      osc. med.      osc. very fast  
B. Tbn. 1      pp      mf      osc. fast      osc. med.      osc. very fast  
Vn. 1      behind the bridge      extreme bow pressure      slow bowing  
Vn. 3      behind the bridge      extreme bow pressure / slow bowing  
Va. 1      s.p.      osc. very fast      behind the bridge      extreme bow pressure / slow bowing  
Vc. 1      v.p.      osc. very fast      behind the bridge      extreme bow pressure / slow bowing  
  
 Perc. 1      p      pp      ppp  
Perc. 2      p      pp      pp  
Pno.      osc. med.  
D.B.      harmonic sweeping the string / ad lib.  
  
 Tamtam  
  
 B. Fl. 2      2 3 4 5 osc. slow      osc. med.      osc. very fast  
B. Cl. 2      pp      mf      osc. slow [M]      osc. med.      osc. very fast  
B. Tbn. 2      osc. fast      osc. med.      osc. med.      osc. very fast  
Vn. 2      behind the bridge      extreme bow pressure / slow bowing  
Vn. 4      behind the bridge      extreme bow pressure / slow bowing  
Va. 2      s.p.      osc. very fast      behind the bridge      extreme bow pressure / slow bowing  
Vc. 2      v.p.      osc. very fast      behind the bridge      extreme bow pressure / slow bowing

61 c.8"

$\text{♩} = 40$

B. Fl. I  
B. Cl. I  
B. Tbn. I  
Vn. 1  
Vn. 3  
Va. 1  
Vc. 1

Perc. 1  
Perc. 2  
Pno.  
D.B.

B. Fl. 2  
B. Cl. 2  
B. Tbn. 2  
Vn. 2  
Vn. 4  
Va. 2  
Vc. 2

non osc. ord.  $\text{\textit{ppp}}$  osc. very slow  
behind the bridge / legno battuto  
a.s.t.

65 c. 7"

B. Fl. I

B. Cl. I

B. Tbn. I oscillating the slide position while blowing the air  
breath, air sound

Vn. 1 osc. med.  
f [-] irregular pitch oscillation

Vn. 3 osc. med.  
f [-] irregular pitch oscillation

Va. 1

Vc. 1 mf pppp

Perc. 1 Thai Gong

Perc. 2 Thai Gong p

Pno. with brush with hand

D.B. behind the bridge  
extreme bow pressure / slow bowing

B. Fl. 2

B. Cl. 2

B. Tbn. 2 oscillating the slide position while blowing the air  
breath, air sound

Vn. 2 osc. med.  
f [-] irregular pitch oscillation

Vn. 4 osc. med.  
f [-] irregular pitch oscillation

Va. 2 mf pppp

Vc. 2 mf pppp

Cymbals

poco accel. ....  $\bullet = 54$

69

B. Fl. I      breath, air sound  
with key clicks / fast ad lib.

B. Cl. I       $M$   
 $ppp$   $g\sharp$

B. Tbn. I

Vn. 1       $pp$   $ff$  [-] irregular pitch oscillation  
osc. fast  
osc. med.  
osc. very slow

Vn. 3       $pp$   $ff$  [-] irregular pitch oscillation  
osc. fast  
osc. med.  
osc. very slow

Va. 1      extreme bow pressure / normal bowing speed  
 $ff$

Vc. 1      behind the bridge  
 $f$   $\square$

Perc. 1      **Thai Gong**  
**Tamtam**  
scrape the surface of tamtam with stick / circular motion

Perc. 2      **Thai Gong**  
**Tamtam**  
scrape the surface of tamtam with stick / circular motion

Pno.

D.B.      noise pizz.  $p$   $af$   $p$   $f$   $ppp$

B. Fl. 2      breath, air sound  
with key clicks / fast ad lib.

B. Cl. 2       $ppp$   $f$   $\square$

B. Tbn. 2

Vn. 2       $pp$   $ff$  [-] irregular pitch oscillation  
osc. fast  
osc. med.  
osc. very slow

Vn. 4       $pp$   $ff$  [-] irregular pitch oscillation  
osc. fast  
osc. med.  
osc. very slow

Va. 2      extreme bow pressure / normal bowing speed  
sol 1, II  $ff$

Vc. 2      behind the bridge  
 $f$   $\square$

c.7"                    c.9"

$\bullet = 40$

**74** key clicks only / ad lib.

B. Fl. 1  
B. Cl. 1  
B. Tbn. 1  
Vn. 1  
Vn. 3  
Va. 1  
Vc. 1

Perc. 1  
Perc. 2  
Pno.  
D.B.

B. Fl. 2  
B. Cl. 2  
B. Tbn. 2  
Vn. 2  
Vn. 4  
Va. 2  
Vc. 2

key clicks only / ad lib.

Tam tam with wooden stick

ppp  
Tam tam with wooden stick  
ppp

onc. fast

poco rit.  $\text{c.} 6''$

$\text{B. Fl. 1}$        $\text{B. Cl. 1}$        $\text{B. Tbn. 1}$        $\text{Vn. 1}$        $\text{Vn. 3}$        $\text{Va. 1}$        $\text{Vc. 1}$

overblowing with voice / get the highest harmonic

$\text{Perc. 1}$        $\text{Perc. 2}$        $\text{Pno.}$        $\text{D.B.}$

scrape the surface of tamtam with stick / straight motion

$\text{B. Fl. 2}$        $\text{B. Cl. 2}$        $\text{B. Tbn. 2}$        $\text{Vn. 2}$        $\text{Vn. 4}$        $\text{Va. 2}$        $\text{Vc. 2}$

overblowing with voice / get the highest harmonic

**82**

**B. Fl. 1**

**B. Cl. 1**

**B. Tbn. 1**

**Vn. 1**

**Vn. 3**

**Va. 1**

**Vc. 1**

**Perc. 1** *Thai Gongs*

**Perc. 2** *Thai Gongs*

**Pno.**

**D.B.**

**B. Fl. 2**

**B. Cl. 2**

**B. Tbn. 2**

**Vn. 2**

**Vn. 4**

**Va. 2**

**Vc. 2**

1 2 3 4 5 osc. med.  
2 3 4 osc. med.

*p* *mf* *M* *p* *mf*

microtune by embouchure / do not tune exactly with B Tbn. 2  
osc. slow ..... osc. med.

osc. fast

*f* *f* *osc. fast* *mp*

osc. very slow *ord* *osc. fast*

*mf* *f* *osc. med.*

*osc. very slow* *V A.S.T.* *ord* *osc. med.*

*f*

*f*

*pp* *f* *p* *p*

*ppp* *f* *p* *p*

with brush

*f*

*f*

*mf* *f*

*osc. med.*

*mf* *f*

*osc. med.*

*mf* *f*

*osc. fast*

*mf* *f*

*osc. fast*

*mf* *f*

*osc. med.*



accel.  $\text{♩} = 52$

$c.20''$

**Musical Score Details:**

- Measure 90:** B. Fl. 1, B. Cl. 1, B. Tbn. 1 play eighth-note patterns. Vn. 1, Vn. 3, Va. 1 play sustained notes with dynamic markings:  $p$ ,  $f$ ,  $\text{fff}$ . Vc. 1 plays eighth-note patterns with dynamic markings:  $p$ ,  $f$ ,  $\text{fff}$ . Perc. 1 and Perc. 2 play eighth-note patterns. Pno. and D.B. play sustained notes.
- Measure 91:** B. Fl. 2, B. Cl. 2, B. Tbn. 2 play eighth-note patterns. Vn. 2, Vn. 4, Va. 2 play sustained notes with dynamic markings:  $p$ ,  $f$ ,  $\text{fff}$ . Vc. 2 plays eighth-note patterns with dynamic markings:  $p$ ,  $f$ ,  $\text{fff}$ .
- Performance Instructions:**
  - Vn. 1, Vn. 3, Va. 1:**  $\delta^{(m)} \dots$  (indicated by a bracket above the notes),  $\delta^{(m)} \dots$  (indicated by a bracket above the notes),  $\delta^{(m)} \dots$  (indicated by a bracket above the notes).
  - Vc. 1:** behind the bridge, extreme bow pressure / slow bowing.
  - Perc. 1, Perc. 2:** [Crotales] (indicated by a bracket above the notes).
  - D.B.:** behind the bridge.

94

$\text{♩} = 46 \text{ accel.}$   $\text{♩} = 52$   $\text{♩} = 46 \text{ sub.}$

B. Fl. I      B. Cl. I      B. Tbn. I      Vn. 1      Vn. 3      Va. 1      Vc. 1

Perc. 1      Perc. 2      Pno.      D.B.

B. Fl. 2      B. Cl. 2      B. Tbn. 2      Vn. 2      Vn. 4      Va. 2      Vc. 2

c. 11"

accel.  $\text{♩} = 52$

$\text{c. 9''}$

**99**

This musical score page contains three systems of staves. The top system includes parts for Bassoon 1, Clarinet 1, Bassoon 2, Violin 1, Violin 3, Cello 1, Percussion 1, Percussion 2, Piano, and Double Bass. The middle system includes parts for Bassoon 2, Clarinet 2, Bassoon 3, Violin 2, Violin 4, Cello 2, and Bassoon 4. The bottom system includes parts for Bassoon 1, Clarinet 1, Bassoon 2, Violin 1, Violin 3, Cello 1, and Double Bass. The score features various dynamics like *p*, *pp*, *mf*, and *sfp*. Specific performance instructions include "with voice" with a vocal range bracket, "Tamtam" and "Thai Gong" with associated rhythmic patterns, and "behind the bridge". The bassoon parts have sustained notes with grace notes. The piano part has sustained notes with dynamic markings like *p* and *pp*.

103

B. Fl. 1 with voice *M*

B. Cl. 1 with voice *M*

B. Tbn. 1 with voice *M*

Vn. 1 behind the bridge *sffz p*

Vn. 3 behind the bridge *sffz p*

Vg. 1 behind the bridge *sffz p*

Vc. 1 behind the bridge *sffz p* slow bowing

Perc. 1 Crotolas

Perc. 2 Crotolas

Pno. extreme gliss' pressure

D.B. behind the bridge *sffz p* slow bowing

B. Fl. 2 with voice *M*

B. Cl. 2 with voice *M*

B. Tbn. 2 with voice *M*

Vn. 2 behind the bridge *sffz p*

Vn. 4 behind the bridge *sffz p*

Vg. 2 behind the bridge *sffz p*

Vc. 2 behind the bridge *sffz p* slow bowing



112 c.10"  $\bullet = 60$

B. Fl. I  
B. Cl. I  
B. Tbn. I  
Vn. 1  
Vn. 3  
Va. 1  
Vc. 1

B. Fl. 2  
B. Cl. 2  
B. Tbn. 2  
Vn. 2  
Vn. 4  
Va. 2  
Vc. 2

*osc. very slow*  $\rightarrow$  *osc. med*

**Audio Playback:**

Perc. 1 *Crotales* *with D.B. bow*  
Perc. 2 *Crotales* *with D.B. bow*  
Pno.  
D.B.

Vn. 2 *vertical bowing / breath, air sound*  
Vn. 4 *on the bridge / breath, air sound*

116 osc. slow

B. Fl. 1      > ppp

B. Cl. 1      osc. very slow  
ppp

B. Tbn. 1

Vn. 1 vertical bowing / breath, air sound  
p

Vn. 3 on the bridge / breath, air sound  
ppp p

Va. 1

Vc. 1

---

Perc. 1      > ppp pp

Perc. 2      > ppp < pp

Pno.      sfp sff

D.B.

---

B. Fl. 2 osc. very slow      osc. med      osc. slow  
ppp p ppp

B. Cl. 2

B. Tbn. 2

Vn. 2 < p      sul IV M  
ppp ff

Vn. 4 sul IV M  
ff

Va. 2 sul IV M  
ff

Vc. 2

120

B. Fl. 1

B. Cl. 1

B. Tbn. 1

Vn. 1

Vn. 3

Va. 1

Vc. 1

Perc. 1

Perc. 2

Pno.

D.B.

B. Fl. 2

B. Cl. 2

B. Tbn. 2

Vn. 2

Vn. 4

Va. 2

Vc. 2

124

B. Fl. 1      osc. slow      osc. fast      [M]

B. Cl. 1      *p*      *smf*

B. Tbn. 1

Vn. 1      on the bridge / breath, air sound      *ppp*      *p*

Vn. 3      *j*      vertical bowing / breath, air sound      *ppp*      *p*

Va. 1      on the body / breath, air sound      *ppp*      *p*

Vc. 1

Perc. 1      *ppp*      *pp*

Perc. 2

Pno.      *vmp*      *ff*      *sp*      *mf*

D.B.

B. Fl. 2      osc. med.      *ppp*      *p*      *smf*

B. Cl. 2

B. Tbn. 2

Vn. 2      *sul III*      *ppp*      *f*

Vn. 4      *sul IV*      *ppp*      *mf*

Va. 2      *sul IV*      *ppp*      *mf*

Vc. 2      *sul IV*      *j*      *f*

128

B. Fl. 1 osc. slow  
B. Cl. 1 osc. fast  
B. Tbn. 1

Vn. 1 sul III in the pegbox / high crispy sound  
Vn. 3 on the body / breath, air sound  
Va. 1 vertical bowing / breath, air sound  
Vc. 1 on the tailpiece / breath, air sound

Perc. 1  
Perc. 2  
Pno.  
D.B.

B. Fl. 2 osc. slow  
B. Cl. 2 osc. med.  
B. Tbn. 2

Vn. 2 in the pegbox / high crispy sound  
Vn. 4 on the body / breath, air sound  
Va. 2 vertical bowing / breath, air sound  
Vc. 2 on the tailpiece / breath, air sound

132

B. Fl. I

B. Cl. I

B. Tbn. I

Vn. 1

Vn. 3

Va. 1

Vc. 1

Perc. 1

Perc. 2

Pno.

D.B.

B. Fl. 2

B. Cl. 2

B. Tbn. 2

Vn. 2

Vn. 4

Va. 2

Vc. 2

sul IV [M] con sord. aluminum foil  
f ppp

sul III [M] con sord. aluminum foil  
f ppp

con sord. aluminum foil  
f ppp

sul IV [M] con sord. aluminum foil  
f ppp

ppp pp

sp osc. very slow V a.s.t.

sul IV [M] con sord. aluminum foil  
f ppp

sul III [M] con sord. aluminum foil  
f ppp

sul IV [M] con sord. aluminum foil  
f ppp

sul IV [M] con sord. aluminum foil  
f ppp

136

B. Fl. I

B. Cl. I

B. Tbn. I

Vn. 1 con sord. aluminum foil

Vn. 3 con sord. aluminum foil

Va. 1 con sord. aluminum foil

Vc. 1 con sord. aluminum foil

Perc. 1

Perc. 2

Pno.

D.B.

Tamtam

B. Fl. 2

B. Cl. 2

B. Tbn. 2

Vn. 2

Vn. 4

Va. 2 con sord. aluminum foil

Vc. 2 con sord. aluminum foil

rit.  $\text{♩} = 40$

osc. very slow  $\xrightarrow{\text{J}}$  osc. very fast  $\xrightarrow{\text{H}}$

breath, air sound osc. very slow  $\xrightarrow{\text{L}}$  osc. fast  $\xrightarrow{\text{H}}$

con sord. aluminum foil

con sord. aluminum foil

con sord. aluminum foil

con sord. aluminum foil

pppp

pppp

with glass

ppp  $\xrightarrow{\text{mp}}$   $\xrightarrow{\text{f}}$

ppp  $\xrightarrow{\text{f}}$

osc. very slow  $\xrightarrow{\text{H}}$  osc. very fast  $\xrightarrow{\text{L}}$

breath, air sound osc. very slow  $\xrightarrow{\text{L}}$  osc. fast  $\xrightarrow{\text{H}}$

con sord. aluminum foil

con sord. aluminum foil

140 rit. .....  $\text{osc. very slow}$  L

B. Fl. 1

B. Cl. 1  $\text{osc. very slow}$  L

B. Tbn. 1  $\text{osc. very slow}$  L

Vn. 1

Vn. 3

Va. 1

Vc. 1

Perc. 1

Perc. 2 *Tam-tam*

Pho.

D.B. harmonic sweep along the string / ad lib.

B. Fl. 2  $\text{osc. very slow}$  L

B. Cl. 2  $\text{osc. very slow}$  L

B. Tbn. 2

Vn. 2

Vn. 4

Va. 2

Vc. 2

$\text{c. 11''}$

144

*poco accel.*  $\text{♩} = 48$   $\text{♩} = 60$

B. Fl. I  
B. Cl. I  
B. Tbn. I

Vn. 1 behind the bridge con sed. aluminum foil  $\text{sf ppp sub.}$  with voice  $\text{M}$   $\text{ffz}$  with voice  $\text{M}$   $\text{ffz}$  with voice  $\text{ffz}$

Vn. 3 behind the bridge con sed. aluminum foil  $\text{sf ppp sub.}$  slow bow  $\text{ff}$

Va. 1 behind the bridge con sed. aluminum foil  $\text{sf ppp sub.}$  slow bow  $\text{ff}$

Vc. 1 behind the bridge con sed. aluminum foil  $\text{sf ppp sub.}$  slow bow  $\text{ff}$

Perc. 1  $\text{ffz}$   $\text{mf}$   $\text{pp}$   $\text{ffz}$

Perc. 2  $\text{ffz}$   $\text{p}$   $\text{ppp}$   $\text{ffz}$

Pno.  $\text{ppp}$   $\text{f}$   $\text{ffz}$

D.B. osc. very slow  $\dots$  osc. med  $\dots$  osc. very fast  $\text{ff ppp sub.}$

B. Fl. 2  
B. Cl. 2  
B. Tbn. 2

Vn. 2 behind the bridge con sed. aluminum foil  $\text{sf ppp sub.}$  with voice  $\text{M}$   $\text{ffz}$  with voice  $\text{M}$   $\text{ffz}$  with voice  $\text{ffz}$

Vn. 4 behind the bridge con sed. aluminum foil  $\text{sf ppp sub.}$  slow bow  $\text{ff}$

Va. 2 behind the bridge con sed. aluminum foil  $\text{sf ppp sub.}$  slow bow  $\text{ff}$

Vc. 2 behind the bridge con sed. aluminum foil  $\text{sf ppp sub.}$  slow bow  $\text{ff}$

148 poco rit. .....  $\text{♩} = 35$  c.30"

B. Fl. 1  
B. Cl. 1  
B. Tbn. 1

Vn. 1  
Vn. 3  
Va. 1  
Vc. 1

Perc. 1  
Perc. 2  
Pno.  
D.B.

B. Fl. 2  
B. Cl. 2  
B. Tbn. 2

Vn. 2  
Vn. 4  
Va. 2  
Vc. 2

[Large Gong]