

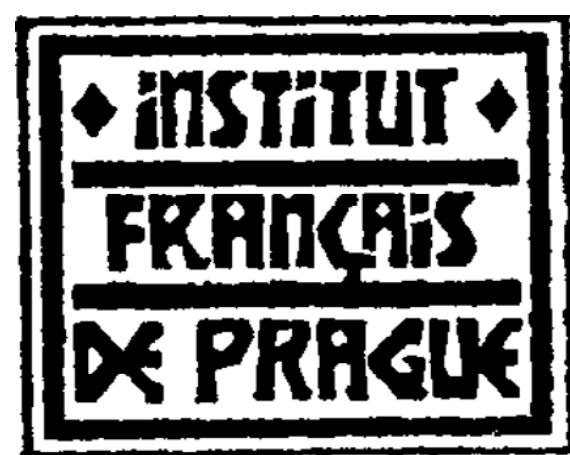
Michal Rataj
(*1975)

Hearing heart

for ensemble and live electronic

2005

A commission by French Institute Prague



Michal Rataj
Hearing heart
(2005)

Dedicated to Didiér Montagne & French Institute Prague

Inspired by first couple of days of Agnes's life

Computer support realized in cooperation with GMEM, Marseille (thanks to Laurent Pottier and Charles Bascou)
and donated by French Institute Prague

Special thanks to Michel Swierczewski

Ensemble

Alto Flute in G
Oboe
Bass Clarinet in Bb alternated with Clarinet in Bb
Bassoon

French Horn in F
Trumpet in B
Trombone
*

*

Percussions (2 players)

I.
small tom-tom, middle tom-tom, floor-tom
snare drum
4 suspended cymbals (china, ride, crash, splash)
triangle

II.
Vibraphone
Glockenspiel
3 suspended cymbals (china, crash, splash)
Wood-block

Shared
tam-tam (medium or larger size)
*

piano (prepared)

*

2 Violins
Viola
Violoncello
Double bass

The score is written in C (real pitch)

Live electronic

Eight channels speaker system in a circle set-up around the audience

Flute, Violin I, Cello and Tam-tam to be amplified with microphones positioned as close as possible

Whole ensemble might be SLIGHTLY amplified and routed into two (or four) front speakers depending on particular space and acoustic conditions

MAX / Msp platform running on Apple G4 1,25 GHz or higher, RAM 768 MB (recommended), OSX
with appropriate 8-channels DA System

MAX / Msp Patch includes implementation for Behringer BCF 2000 controller

Scoring of live-electronic events:

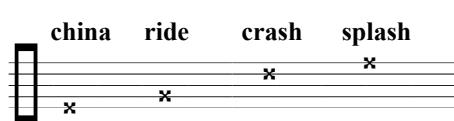
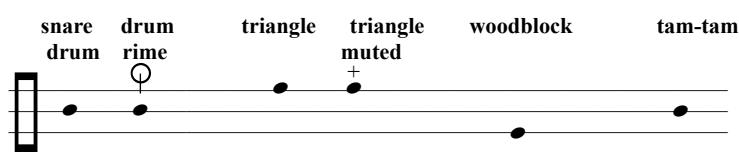
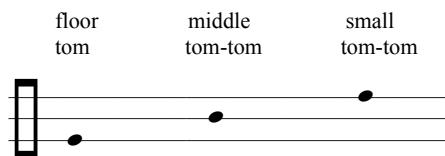
circled numbers mean an event of the MAX Msp patch

bold events mean "new acoustic event" running within the MAX Msp patch (new sample, new paf-oscillator harmony, new instrument transformation etc.)
normal events mean change of a current acoustic event (mostly fade outs)

durata: cca 15,30

Notes on performance

Percussions scoring



Dynamic

crescendo and decrescendo from and until silence



Microintervals notation

ca quarter tone higher normal half tone ca three quarter tones higher



PIANO



sub-contra C to be prepared with a small rubber object to produce blunt percussive sound

Loudspeaker setup

E N S E M B L E



Control Desk



A

J = 60 Straight

Alto Flute in G
Oboe
Bass Clarinet in Bb
Bassoon
Horn in F
Trumpet in Bb
Trombone

A

Straight
J = 60

Tom-toms
Snare drum
Tam-tam
Triangle
Wood-block
Cymbals
Vibraphone
Glockenspiel
Cymbals
Tam-tam
Wood-block
Piano

start up sample 2
1 2 12 sec paf 1 3

Violin I
Violin II
Viola
Violoncello
Contrabass

Like discovering something

aeolian sound

A. Fl. multiphonic *f* frull. *fp* *mf* *p* *espress.* *p* *#* *mf*

Ob. multiphonic *f*

Bcl. *8*

Bsn. *espress.* *espress.* *p* *#* *mf*

Hn. *mf* *3* *ppp* *fp*

Tp. *mf*

Tbn. *fp* *con sordino (Hush)* *gliss.* *p* *mf*

Like discovering something

tom *f*

Snare *snare* *fp* *mf* *p*

Cymb. *f*

vibraphone *mf* *5*

Tam-tam *glockenspiel* *p*

Pno *f* *mf* *mf* *paf 3*

el. *paf fade out sample 1 fade out* ** & sempre*

Vno I *poco a poco trem.* *Glissando* *pizz* *f* *pizz* *mf*

Vno II *poco a poco trem.* *Glissando* *f* *pizz* *mf*

Vla *poco a poco trem.* *Glissando* *f* *pizz* *mf*

Vcl *poco a poco trem.* *Glissando* *f* *pizz* *mf*

Cb *poco a poco trem.* *Glissando* *f* *pizz* *mf*

Like discovering something

pizz *f* *arco* *p*

10

A. Fl. *frull.* *pp*

Ob.

Bcl. *p* *pp* *p* *pp*

Bsn. *pp* *p*

Hn. *p* *Gliissando*

Tp.

Tbn.

tom. *p*

Snare.

Cymb. *mf*

mf

Glock. *vibraphone* *p* *Xo.*

Tam-tam

Pno. *pp*

el. (6) Paf fade out (7) paf 4 (8) Paf fade out

Vno I *arco sul tasto* *pp*

Vno II *sul tasto* *pp*

Vla. *arco sul tasto* *pp*

Vcl. *arco sul tasto* *pp*

Cb. *pizz. molto vibr.* *vibr.* *mf*

arco sul A *pp* *p*

15

A. Fl. Ob. Bcl. Bsn. Hn. Tp. Tbn.

15

tom Snare Cymb. Vibr. Tam-tam Pno el.

Vno I Vno II Vla. Vcl. Cb.

Dynamic markings: *pp*, *f*, *mf*, *cresc.*, *decresc.*, *espress.*, *subito*, *senza sordino*, *p*, *fp*, *splash*, *p*, *mf*, *cresc.*, *decresc.*, *tam-tam*, *p*, *pp*, *senza pedale*, *8va*, *Paf 2*, *Perc Pitch 1*, *Paf 2*, *Paf fade out*, *Perc. Pitch off Sample 3*, *col legno ricochet*, *to be played behind the bridge*, *arco*, *espress.*, *pizz*, *ala Bartók*, *ff*, *arco sul pont.*, *sul pont.*, *p*, *mf*.

Measure 15: A. Fl. Ob. Bcl. Bsn. Hn. Tp. Tbn.

Measure 16: tom Snare Cymb. Vibr. Tam-tam Pno el.

Measure 17: Vno I Vno II Vla. Vcl. Cb.

20

A. Fl. *continuously change to frull.*

Ob.

Bcl. *molto vibr.*

Bsn. *molto vibr.*

Hn.

Tp. *fp* *gliss.*

Tbn.

20

tom

Triang. *triangle*

Cymb. *scratching up and down with decreasing intensity*

Vibr. *arco (contrabass bow)*

Cymb.

Pno

el. *(11) Flute Pitch 1*

*(12) Flut Pitch off
Perc Pitch 1*

20 *sul tasto*

Vno I *naturale*

Vno II *sul tasto*

Vla *pizz*

Vcl *sul tasto* *poco a poco trem.* *naturale*

Cb *sul tasto*

poco gliss con flag naturale

col legno ricochet

arco

pizz ala Bartók

25

A. Fl. *slap key* *p* *f*

Ob.

Bcl. *p* *frull.*

Bsn. *p*

clarinet in Bb multiphonic

Hn. *aeolian sound* *f*

Tp. *p* *aeolian sound*

Tbn. *f*

tom

Tam-tam *tam-tam* *p*

Cymb.

Glock.

Cymb.

Pno

el.

sample 4
Paf 6
Perc Pitch cresc.
13

Vno I *col legno ricochet*
to be played behind the bridge *mf*

Vno II *col legno ricochet*
to be played behind the bridge *mf*

Vla *col legno ricochet*
to be played behind the bridge *mf*

Vcl *col legno ricochet*
to be played behind the bridge *mf*

Cb *col legno ricochet*
to be played behind the bridge *mf*

pizz *ala Bartók*

poco molto vibr. e express.

arco

fp

molto vibr.

sul pont.

poco gliss con flag naturale

arco

sfz *mf*

30

A. Fl. *espress.* continuously change to *frull.* $\frac{3}{4}$

Ob. *espress.* continuously change to *frull.* $\frac{3}{4}$

Cl. *espress.* continuously change to *frull.* $\frac{3}{4}$

Bsn. *espress.* $\frac{3}{4}$

Hn. *aeolian sound* $\frac{3}{4}$

Tp. *aeolian sound* $\frac{3}{4}$

Tbn. $\frac{3}{4}$

tom. $\frac{3}{4}$

Tam-tam *poco a poco cresc.* $\frac{3}{4}$

Cymb. $\frac{3}{4}$

Glock. *vibraphone* $\frac{3}{4}$

Cymb. *splash* $\frac{3}{4}$

Pno. *senza pedale* $\frac{3}{4}$

el. *(14) Paf fade out Sample 5* $\frac{3}{4}$

Vno I *sul pont.* $\frac{3}{4}$

Vno II *sul pont.* $\frac{3}{4}$

Vla. *sul pont.* $\frac{3}{4}$

Vcl. $\frac{3}{4}$

Cb. $\frac{3}{4}$

B ♩=80 With growing interest

35

A. Fl. Ob. Cl. Bsn

35

Hn. Tp. Tbn.

B ♩=80 With growing interest

35

tom Tam-tam Cymb. Vibr. Cymb. Pno

Sample fade out
Perc Pitch fade out
Vno Pitch 1

15

Vno Pitch off
Paf 7

16

With growing interest

Vno I Vno II Vla Vcl Cb

Glissando
con sordino
pizz
ala Bartók
ff
pizz
molto vibr.

senza sordino
pp < mf
pp < mf
pp < mf
pp < mf

A. Fl. freq. shift *espress.* 3 *mf*
 Ob. *p* *espress.* 5 *mf*
 Cl. *mf* *p* *espress.* 3 *mf*
 Bsn. *p* *espress.* 3 *mf*
 Hn. *con sordino* *pp* *p* *pp*
 Tp. *p* *p* *p* *p*
 Tbn. *p* *p*
 tom.
 Tam-tam
 Cymb. *p* *pp* *pp* *mf*
 Vib. *pp*
 Cymb.
 Pno. *pp* *pp* *pp* *mf* *p* *p* *p*
 el. 17 Paf fade out
 Fl. Pitch 2
 Vcl. delay 1
 Vno I *pp* *pp* *mf*
 Vno II *pizz* *mf* *p* *mf*
 Vla. *pizz* *mf* *mf* *mf*
 Vcl. *mf* *mf* *mf* *mf* *pizz* *molto vibr.*
 Cb. *p* *p* *p* *mf*

45

A. Fl. Ob. Cl. Bsn. Hn. Tp. Tbn.

molto vibr. - continuously change to - frull. *mf*

45

tom Snare Cymb. Glock. Cymb. Pno. el. Vno I. Vno II. Vla. Vcl. Cb.

glockenspiel *vibraphone* b. di vibraf. *sul pont.* *sul pont.* *sul pont.* *sul pont.* *sul G*

18 Flut Pitch 3

A. Fl. Ob. Cl. Bsn. Hn. Tp. Tbn.

tom triangle snare glockenspiel b. di vibraf. vibraphone

Cymb. Vibr. Cymb.

Pno el.

Vno I Vno II Vla Vcl Cb

A. Fl. 55
 Ob. p
 Cl. p
 Bsn. p
 Hn.
 Tp.
 Tbn.

 tom
 Triang. triangle
 Cymb.
 Vib.
 Cymb.
 Pno. 55
 el.
19 Flut Pitch off Sample 6
 Vno I p
 Vno II p
 Vla. p
 Vcl. 3
 Cb. 8va sul tasto pp
continuously changing articulation
legato

A. Fl. *p* 60 *aeolian sound >* *f*
 Ob. *p*
 Cl. *p* *slap tongue* *f*
 Bsn. *p*
 Hn.
 Tp.
 Tbn. *fp*

 tom
 Snare *fp* *snare* *mf*
 Cymb. *arco (contrabass bow)* *p*
 Vibr. *mf* 60 *p* *f*
 Cymb.

 Pno *mf* *cresc.* *f*
 el. (20) *paf 6* (21) *Paf fade out*
Sample7 *Vno Delay 1* *Vcl Delay 2*

 Vno I *p* *8va* *senza sordino* 60 *col legno ricochet* *f*
 Vno II *p* *senza sordino* *col legno ricochet* *f*
 Vla *p* *senza sordino* *col legno ricochet* *f*
 Vcl *cresc.* *col legno ricochet* *f*
 Cb *(8va)* *p* *pizz* *ala Bartók* *pp* *f* *col legno ricochet* *f*
to be played behind the bridge *f* *to be played behind the bridge* *f*
to be played behind the bridge *f* *col legno ricochet* *f*
to be played behind the bridge *f*

A. Fl. *frull.* > 65 *mf* *tr.* (±) *f*
 Ob. *frull.* *espress.* *p* *fp* *tr.* (±) *f*
 Cl. *frull.* *espress.* *p* *fp* *tr.* (±) *f*
 Bsn. *frull.* *espress.* *p* *fp* *tr.* (±) *f*
 Hn. 65 *tr.* *f*
 Tp. *tr.* *f*
 Tbn. *tr.* *f*

 tom 65 *tr.* *p* *mf* *tr.* *f*
 Snare *fp* *mf* *tr.* *f*
 Cymb. *tr.* *f*
 Vibr. 65 *mf* *tr.* *f*
 Cymb. *tr.* *f*

 Pno. *p* *fp* *ff* *mf* *f*
 el. *tr.* *tr.* *tr.* *tr.* *tr.*
 (22) delays OFF

 Vno I *pizz* *ala Bartók* 65 *arco* *p* *poco a poco trem.* *f*
 Vno II *pizz* *ala Bartók* *arco* *p* *poco a poco trem.* *f*
 Vla. *pizz* *ala Bartók* *arco* *p* *poco a poco trem.* *f*
 Vcl. *pizz* *ala Bartók* *arco* *p* *poco a poco trem.* *f*
 Cb. *pizz* *ala Bartók* *mf* *p* *pizz* *ala Bartók* *f* *Glissando*

C ♩=100

A. Fl. Ob. Cl. Bsn.

Hn. Tp. Tbn.

C ♩=100

tom Tam-tam Cymb.

Vibr. Cymb.

Pno

el. 23 (Perc Pitch 3
Vno Pitch 3
Vno Delay 2)

C ♩=100

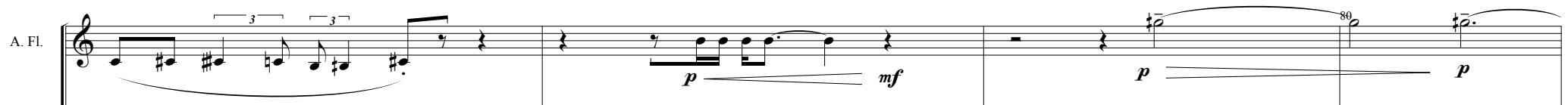
Vno I Vno II Vla Vcl. Cb.

A. Fl. Ob. Cl. Bsn.
 Hn. Tp. Tbn.
 tom Tam-tam Cymb.
 Vibr. Cymb.
 Pno. el.
 Vno I Vno II
 Vla. sul pont.
 Vcl. sul pont.
 Cb.

frull. 75

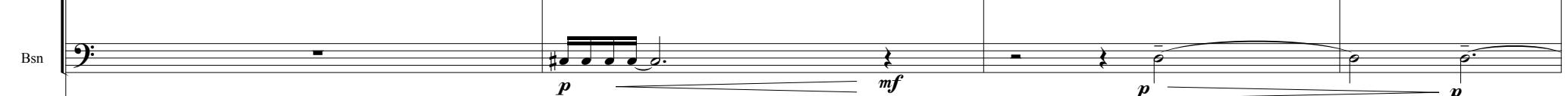
Measures 75-80 (cont'd):

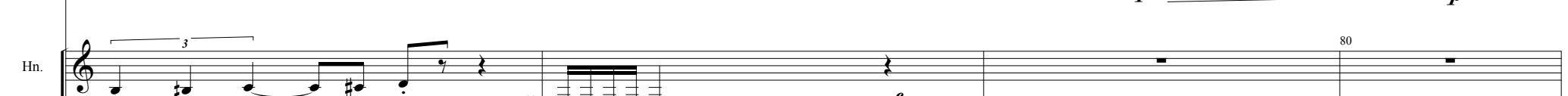
- A. Fl., Ob., Cl., Bsn.: Measure 75: *pp*, *p*. Measure 76: *p*, *p*.
- Hn., Tp., Tbn.: Measure 75: *pp*.
- Tom, Tam-tam, Cymb.: Measure 75: *p*; Measure 76: *pp*.
- Vibr., Cymb.: Measure 75: *p*; Measure 76: *p*.
- Pno.: Measure 75: *p*. Measure 76: *p* (with dynamic *p* over a sustained note).
- Vno I: Measure 75: *mf* (with dynamic *mf* over a sustained note). Measure 76: *p* (with dynamic *p* over a sustained note).
- Vno II: Measure 75: *p* (with dynamic *p* over a sustained note). Measure 76: *p* (with dynamic *p* over a sustained note).
- Vla.: Measure 75: *pp*. Measure 76: *pp* (with dynamic *pp* over a sustained note).
- Vcl.: Measure 75: *pp*. Measure 76: *pp* (with dynamic *pp* over a sustained note).
- Cb.: Measure 75: *pp*. Measure 76: *pp* (with dynamic *pp* over a sustained note).

A. Fl. 

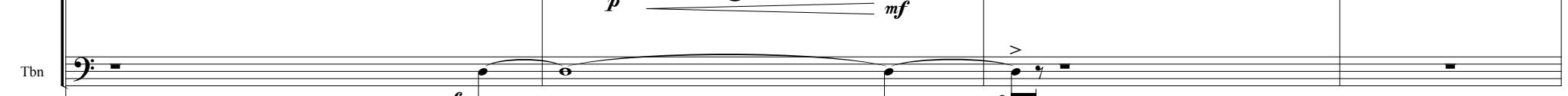
 Ob. 

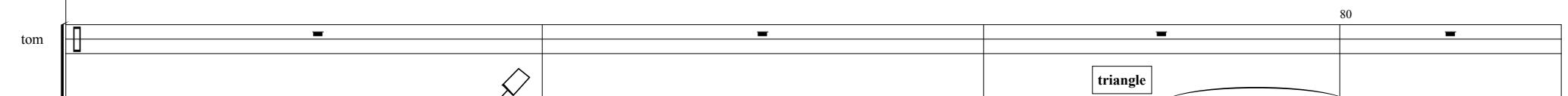
 Cl. 

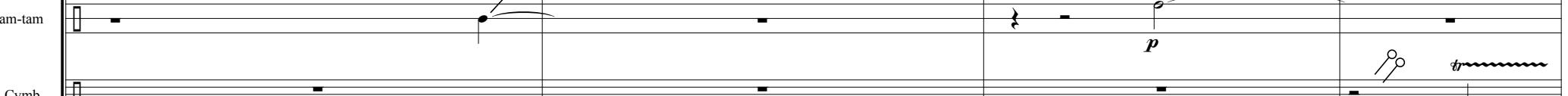
 Bsn. 

 Hn. 

 Tp. 

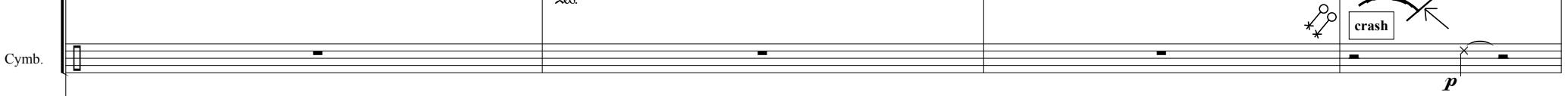
 Tbn. 

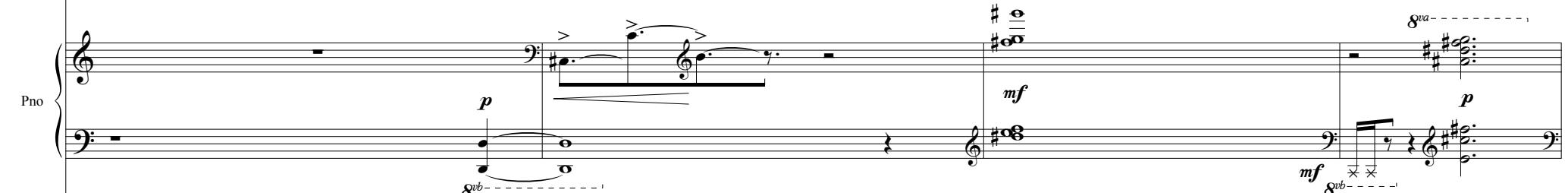
 tom 

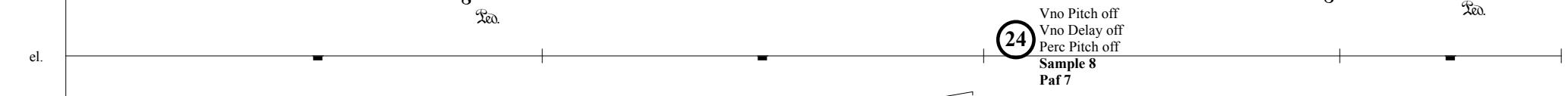
 Tam-tam 

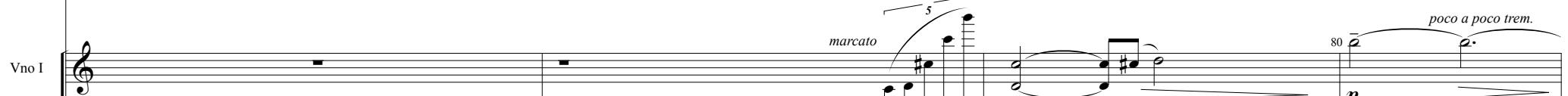
 Cymb. 

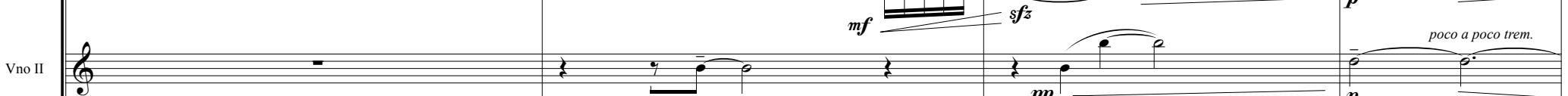
 Vibr. 

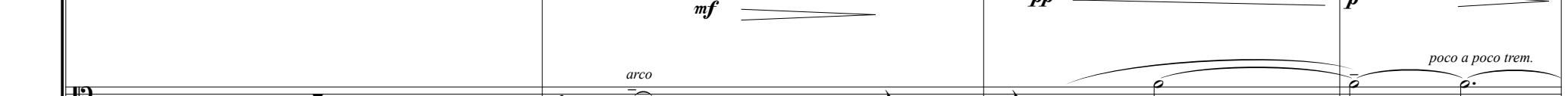
 Cymb. 

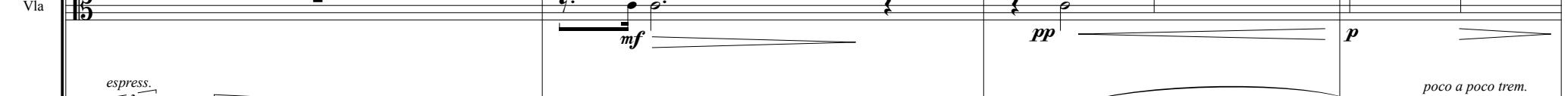
 Pno. 

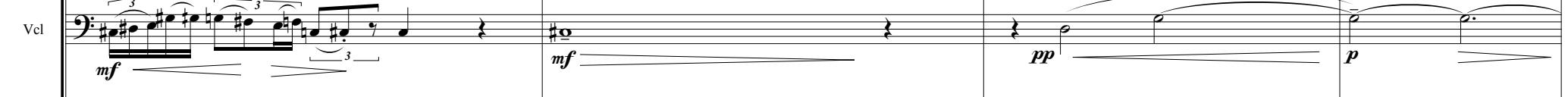
 el. 

 Vno I 

 Vno II 

 Vla. 

 Vcl. 

 Cb. 

80

triangle

pp mf

crash

8va

Vno Pitch off
Vno Delay off
Perc Pitch off
Sample 8
Paf 7

24

marcato

mf

pp

p

poco a poco trem.

arco

pp

p

poco a poco trem.

espress.

mf

pp

p

poco a poco trem.

pizz

Glissando

arco

Glissando

pizz

5

p

pp

p

poco a poco trem.

5

p

pp

A. Fl. *p*
 Ob. *pp*
 Cl. *pp*
 Bsn. *pp*
 Hn.
 Tp. *fp*
 Tbn.

 tom
 Snare
 Cymb. *pp* *f* *pp* *f*
 Vibr. *pp* *f* *p* *p* *p*
 Cymb.

 Pno. *p* *f*
 el.

 Vno I. *mf* *p* *pp*
 Vno II. *mf* *p* *pp*
 Vla. *mf* *p* *pp*
 Vcl. *mf* *p* *pp*
 Cb. *pp* *pizz.* *arco* *pp*

(25) Paf out

A. Fl.

Ob.

Cl.

Bsn.

Hn.

Tp.

Tbn.

tom

Snare

Cymb.

Vibr.

Cymb.

Pno

el.

Vno I

Vno II

Vla

Vcl

Cb

100 Alarm

p

85

mf

85

fp

mf

85

snare

mf

f

85

senza pedale

mf

85 senza pedale

p

mf

85

senza pedale

mf

f

p

f

85

el.

100 Alarm

Vno I

Vno II

Vla

Vcl

Cb

A. Fl.

 Ob.

 Cl.

 Bsn.

 Hn.

 Tp.

 Tbn.

 tom

 Snare

 Cymb.

 Vibr.

 Cymb.

 Pno.

 el.

 Vno I

 Vno II

 Vla.

 Vcl.

 Cb.

(26) **Fl Delay 1**
Vno Delay 3
Vcl Delay 3

spiccato
sul tasto
sul tasto
spiccato
sul tasto

poco a poco ritardando - - - - - e
 90

A. Fl.
 Ob. *subito p*
 Cl.
 Bsn.
 Hn.
 Tp.
 Tbn.

poco a poco ritardando - - - - - e
 90

tom
 Triang.
 Cymb.
 Vib.
 Cymb.
 Pno. *mf* *arco (contrabass bow)* *f*
 el.

poco a poco ritardando - - - - - e
 90

Vno I
 Vno II
 Vla.
 Vcl.
 Cb. *pizz* *p*

D ♩ = 60 Re - discovering

A. Fl. Ob. Bass clarinet Bcl. Bsn. Hn. Tp. Tbn.

95 molto vibr.

D ♩ = 60 Re - discovering

tom. Tam-tam Cymb. Glock. Cymb. Pno. el.

95

tam-tam

mf

glockenspiel

crash

p

(27) Fl Delay fade out
Vno Delay fade out
Vcl Delay fade out
Paf 8
Perc Pitch 4

(28) Paf fade out

D ♩ = 60 Re - discovering

Vno I Vno II Vla. Vcl. Cb.

pizz. 95 arco pp p

pizz. arco pp pp

pp

arco pp

pizz. molto vibr.

molto vibr.

E $\text{♩} = 100$

A. Fl. f

Ob. $f >$

Bcl. $f >$

Bsn. $f >$

Hn. $pp \xrightarrow{3} p$

Tp. $p \xrightarrow{3}$

Tbn. $pp \xrightarrow{3} p$

E $\text{♩} = 100$

tom

Tam-tam $p \xrightarrow{3} f$

Cymb.

Glock. pp

Tam-tam mfp

Pno. f

(29) Perc Pitch fade out

Vln I f

Vln II f

Vla. $pp >$

Vcl. pp

Cb. ppp

E $\text{♩} = 100$

tongue ram

slap tongue

snare

vibraphone

Glissando

Glissando

Glissando

pizz ala Bartók

arco espress.

arco sul D

J = 80 Talking story

A. Fl. Ob. Bcl. Bsn.

Hn. Tp. Tbn.

tom Snare Cymb.

Vibr. Cymb.

Pno. el. Vno I Vno II Vla. Vcl. Cb.

frull. *pp* *3* *frull.* 105

pp *3* *p* *p*

pp *3* *c* *p* *p*

c *c* *c*

105

(rime) *mf* *p* *pp* *105*

p *mf* *c* *c* *c*

p *mf* *c* *c* *c*

8va *mf* *c* *pp* *f* *mf* *8va*

30 Sample 9 *MIDI seq read* *31* *32* Paf 2
Vel Pitch 1
Vel Delay 4

sul pont. *pp* *arco sul tasto* *105*

pp *arco sul tasto* *mf* *subito* *mf*

pizz *mf* *arco sul tasto* *mf* *subito* *mf*

pizz *mf* *8va* *3* *arco sul tasto* *mf* *subito* *mf*

solo express. *mf*

3 *8va* *3*

105

mf

J = 80 Talking story

frull. *pp* *3* *frull.* 105

pp *3* *p* *p*

pp *3* *c* *p* *p*

c *c* *c*

105

(rime) *mf* *p* *pp* *105*

p *mf* *c* *c* *c*

p *mf* *c* *c* *c*

8va *mf* *c* *pp* *f* *mf* *8va*

30 Sample 9 *MIDI seq read* *31* *32* Paf 2
Vel Pitch 1
Vel Delay 4

sul pont. *pp* *arco sul tasto* *105*

pp *arco sul tasto* *mf* *subito* *mf*

pizz *mf* *arco sul tasto* *mf* *subito* *mf*

pizz *mf* *8va* *3* *arco sul tasto* *mf* *subito* *mf*

solo express. *mf*

3 *8va* *3*

105

mf

J = 80 Talking story

frull. *pp* *3* *frull.* 105

pp *3* *p* *p*

pp *3* *c* *p* *p*

c *c* *c*

105

(rime) *mf* *p* *pp* *105*

p *mf* *c* *c* *c*

p *mf* *c* *c* *c*

8va *mf* *c* *pp* *f* *mf* *8va*

30 Sample 9 *MIDI seq read* *31* *32* Paf 2
Vel Pitch 1
Vel Delay 4

sul pont. *pp* *arco sul tasto* *105*

pp *arco sul tasto* *mf* *subito* *mf*

pizz *mf* *arco sul tasto* *mf* *subito* *mf*

pizz *mf* *8va* *3* *arco sul tasto* *mf* *subito* *mf*

solo express. *mf*

3 *8va* *3*

105

mf

110

A. Fl.

Ob.

Bcl

Bsn

clarinet in Bb

Hn.

Tp

Tbn

110

tom

Snare

Cymb.

Vibr.

Cymb.

110

Pno

el.

(33) Sample 10
Paf 9

Vno I

Vno II

Vla

Vcl

Cb

115

A. Fl.

Ob.

Cl.

Bsn.

Hn.

Tp.

Tbn.

tom.

Snare.

Cymb.

Vibr.

Cymb.

Pno.

el.

Vno I.

Vno II.

Vla.

Vcl.

Cb.

F $\text{♩} = 120$

A. Fl. espress. f *poco a poco frull.* ff 120 p *frull.* mf

Ob. espress. f ff mf

Ci. espress. *poco a poco frull.* ff mf

Bsn. espress. f ff mf

Hn. f f 120 c

Tp. f f c

Tbn. f *Gliissando* sfz c

tom mf mf 120 c

Tam-tam c

Cymb. p f f c

Vibr. *arco (contrabass bow)* f c

Cymb. *arco (contrabass bow)* f c

Pno. f f p c

(34) Sample 11

Vln I f f 120 $pizz$ mf c

Vln II f f $pizz$ mf c

Vla. f f $pizz$ mf c

Vcl. *poco a poco trem.* *Gliissando* f f $pizz$ mf c

Cb. mf f *Gliss.* c

A. Fl. *tongue ram* 125 **accel.** $\frac{5}{4}$
Ob.
Cl.
Bsn.
Hn.
Tp.
Tbn. $\frac{5}{4}$

tom *tam-tam* 125 **accel.** $\frac{5}{4}$
Tam-tam $\frac{5}{4}$
Cymb. $\frac{5}{4}$
Glock. *glockenspiel* 125 $\frac{5}{4}$
Cymb. $\frac{5}{4}$
Pno. $\frac{5}{4}$

el. (35) Vcl Pitch fade out
Vcl Delay fade out
Perc Pitch 6 $\frac{5}{4}$

Vno I *arco non vibr.* 125 $\frac{5}{4}$
Vno II *arco non vibr.* $\frac{5}{4}$
Vla. *arco non vibr.* $\frac{5}{4}$
Vcl. *pizz.* $\frac{5}{4}$
Cb. *pizz.* $\frac{5}{4}$

G ♩=80 Strictly

A. Fl. espress. *mf*

Ob. *mf* *f* *pp* *f*

Cl. *mf* *f* *pp* *f*

Bsn. *mf* *f* *pp* *f*

Hn. 130 *mf* *#f* *f*

Tp. *mf*

Tbn. *sffz* *mf*

This section shows a musical score for woodwind and brass instruments. It includes parts for Alto Flute (A. Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Trombone (Tp.), and Bass Trombone (Tbn.). The tempo is indicated as ♩=80 Strictly. The score consists of two systems of music. The first system starts with a rest followed by a melodic line for the Alto Flute. The second system begins at measure 130 with a rhythmic pattern for the Oboe and Clarinet, followed by the Bassoon. The score concludes with a dynamic instruction for the Bass Trombone.

G ♩=80 Strictly

tom

Snare snare *f* *fp* *p* *fp*

Cymb. *mf* *p* *mf*

Glock. *mf* 130 *vibraphone* *arco (contrabass bow)*

Cymb. *mf*

Pno *f* *mf* *mf* *f*

el. Perc Pitch fade out
36 FI Delay 2
Vno Delay 4
Vcl Delay 5
Sample 12

This section shows a musical score for various percussion instruments and piano. It includes parts for Tom, Snare, Cymbal, Glockenspiel, and Piano. The score consists of two systems of music. The first system starts with a rest followed by a rhythmic pattern for the Snare and Cymbals. The second system begins at measure 130 with a melodic line for the Piano. The score concludes with a dynamic instruction for the Piano.

G ♩=80 Strictly

Vno I arco espress. *mf*

Vno II arco sul pont. *pp* *f* *f*

Vla. arco sul pont. *pp* *f* *f*

Vcl. espress. *mf*

Cb. *pp* *f* *f*

This section shows a musical score for string and bass instruments. It includes parts for Violin I (Vno I), Violin II (Vno II), Viola (Vla.), Cello (Vcl.), and Double Bass (Cb.). The score consists of two systems of music. The first system starts with a rest followed by a melodic line for the Violin I. The second system begins at measure 130 with a rhythmic pattern for the Violin II and Viola. The score concludes with a dynamic instruction for the Double Bass.

espress.

A. Fl. *mf*

Ob.

Cl.

Bsn. *pp* *f*

Hn. *pp* *f*

Tp. *mf*

Tbn. *mf*

tom

Snare *fp*

Cymb. *pp* *p* *pp* *mf* *f*

Vibr. 135 *arco* (contrabass bow) *f*

Cymb. *arco*

Pno *p* *f*

el. (37) Paf 10

Vno I 135 *pp*

Vno II *pp*

Vla *pp*

Vcl *pp*

Cb *pp*

A. Fl. *p* *mf* *frull.*
 Ob. *p* *mf*
 Cl. *Bass clarinet* *p* *mf* *espress.*
 Bsn. *p* *mf*
 Hn.
 Tp.
 Tbn. *p* *mf* *Gloss.*

 tom
 snare
 Tam-tam triangle w. block
 Cymb.

 Vibr. *p* *mf* ** Leo.*
 Cymb.

 Pno *p* *pp* *f*
 el.

 Vno I *(8va)* *pp* *mf*
 Vno II *pp* *mf*
 Vla *pp* *mf*
 Vcl *pizz* *molto vibr.*
 Cb *p*

38 Paf fade out
Fl Pitch 4
Vno Pitch 4
Vcl Pitch 3

A. Fl. *mf* *f*
 Ob.
 Bcl. *semper slap tongue* *mf*
 Bsn. *mf*
 Hn. *p* *f*
 Tp. *p* *f*
 Tbn. *e*

 tom. *mf* *(rime)*
 Snare. *f*
 Cymb. *f* *mf*

 Vibr. *f* *p* *b. di vibraf.* *mf* *tam-tam* *pp* *mf*
 Cymb. *mf* *p* *8vb* *mf* *mf* *p* *f*
 Pno. *mf* *p* *8vb* *mf* *mf* *p* *f*
 el. *e*

 Vno I. *con sordino* *sul tasto* *8va* *f*
 Vno II. *p* *mf* *mf* *p* *f*
 Vla. *poco a poco trem.* *f*

 Vcl. *espress.* *mf* *arco sul pont.* *sul pont.* *sul pont.* *f*
 Cb. *mf* *mf* *mf* *ppp* *f*

H $\downarrow 120$

A. Fl. Ob. Bcl. Bsn.

145

J = 60 Hearing heart

frull.

Hn. Tp. Tbn.

f

f

f

J = 120

J = 60 Hearing heart

tom. Snare. Cymb.

f

fp

tam-tam

mf

f

J = 120

J = 60 Hearing heart

Vibr. Cymb. Pno.

c

cymbals

f

pp

f

mf

*

J = 120

J = 60 Hearing heart

(39)
Fl + Vln + Vcl Pitch fade out
Fl Delay 3
Vno Delay 5
Vcl Delay 6
Perc Delay 1
Sample 13

Vno I. Vno II. Vla. Vcl. Cb.

senza sordino 145

pizz. mf

pizz. mf

senza sordino

pizz. mf

espress.

pp

pp

pp

arco

pp

pp

pp

arco

pp

J = 120

J = 60 Hearing heart

A. Fl.
Ob.
Bcl.
Bsn.
Hn.
Tp.
Tbn.

tom
Snare
Cymb.
Vibr.
Cymb.
Pno
el.

Vno I
Vno II
Vla
Vcl
Cb

120 Strange mystery **60** **120**
150 **p** **frull.** **ff**
155

120 **60** **120**
150 **f** **3** **3**
155

120 **60** **120**
150 **f** **3** **6**
155

40 HSeq read perc3.mid

120 Strange mystery **60** **120**
150 **p** **mf** **f**
155

120 **60** **120**
150 **p** **mf** **f**
155

A. Fl. *f* *mf* *p*
 Ob. *f* *p*
 Bcl. *f* *p*
 Bsn. *f* *p*
 Hn. *fp* *sfs* *pp* *f* *molto vibr.*
 Tp. *fp* *sfs* *pp* *f* *pp* *p*
 Tbn. *fp* *sfs* *pp* *f*

J = 60

tom
 Snare *fp* *f* *tam-tam* *mf*
 Cymb.
pp *ff*

Vibr.
 Cymb. *f*
ff *mf* *mf* *p*
(8vb) *ff* *mf* *mf* *p*
ff *f* *p*

el.
 Vno I *f* *Gliss.* *mf* *p*
 Vno II *ff* *f* *p*
 Vla. *ff* *f* *p*
 Vcl. *mf* *f* *p* *p*
 Cb. *ff* *f* *mf* *p*

sul pont.
sul D

I ♩ = 120 Heart attack

A. Fl. 160

Ob.

Bcl

Bsn

frull.

p > mf pp

slap tongue

f ppp mf pp

slap tongue

Hn. 160

Tp

Tbn

Glossando

mf

I ♩ = 120 Heart attack

tom 160

Tam-tam

Cymb.

f

sempre mf

Glock. 160

glockenspiel

p

Tam-tam

Pno

p ff mf p mf

8vb * * * * 8va * * * * 8vb * *

41 Fl Delay fade out
Vno Delay fade out
Vcl Delay fade out
Perc Delay fade out
Perc Pitch 8

I ♩ = 120 Heart attack

Vno I 160

sul pont. pizz arco sul pont.

f p pizz arco sul pont.

sul pont. pizz arco sul pont.

sul pont. pizz arco sul pont.

Vno II

Vla

Vcl

Cb

pizz 8va arco sul pont.

mf

J ♩ = 80 Fateful

A. Fl. espress.

Ob. espress.

Bcl. slap tongue

Bsn. espress.

Hn. pp

Tp. pp

Tbn. pp ff

tom snare

Snare mf

Cymb. ff f

Vibr. vibraphone

Tam-tam tam-tam

Pno. ff fff

el. 42 Perc Pitch fade out HSeq read samples4.mid

43 Sample 14

Vno I pizz ala Bartók

Vno II pizz

Vla. arco fff

Vcl. arco espress. f

Cb. espress. f pizz ala Bartók

Like fighting for something

170 **A. Fl.** *f* *molto espress.* *piu rubato* MAX/Msp vocoder

Ob. *pp*

Bcl. *pp*

Bsn. *pp*

Hn. 170

Tp. *pp*

Tbn. *pp*

tom. 170

snare Tam-tam triangle w. block

Cymb. hold with the hand *ff* *pp* *pp* *ff*

Vibr. 170 *sffz pp* *ff* *ff*

Cymb. *ff*

Pno *sffz pp* *ff* *ff*

el. 44 Fl Pitch + Delay 45 46

Vno I *sul pont.* *pp*

Vno II *sul pont.* *pp*

Vla *sul pont.* *pp*

Vcl *sul pont.* *pp*

Cb *arco sul pont.* *pp*

♩ = 80 Fateful

A. Fl. Ob. Bsn. Hn. Tp. Tbn.

fff fff fff fff fff fff

p p p p p p

3 3 3 3 3 3

♩ = 80 Fateful

tom snare Tam-tam triangle w. block Cymb. Vib. Cymb. Pno el.

ff ff ff ff ff ff

p f

senza pedale ff ff ff ff ff ff

ff ff ff ff ff ff

ff ff ff ff ff ff

all fade out Vln Pitch Initialize

47

♩ = 80 Fateful

Vno I Vno II Vla. Vcl. Cb.

naturale naturale naturale naturale naturale

fff fff fff fff fff

Glissando Glissando Glissando Glissando Glissando

mf p p p

Glissando Glissando Glissando Glissando Glissando

pizz ala Bartók

A. Fl. 
 Ob. 
 Bcl. 
 Bsn. 
 Hn. 
 Tp. 
 Tbn. 

 tom 
 Snare 
 Cymb. 
 Vibr. 
 cymb. tam-tam w. block 
 Pno 
 el. 
 Vno I 
 Vno II 
 Vla 
 Vcl 
 Cb 

hold with the hand

48 Vln Delay 6
 Paf 11
 HSeq read vln2.mid

49
50 Paf fade out
 Pitch Scale 0

51
52 Pitch Scale 700
 Pitch Scale 0

53
54 Pitch Scale 500
 Vln Pitch Fade out

*molto espress.
 piu rubato*

ff
mf
ff
f
f

pp
pp
pp
pp



\downarrow 80 Fateful

A. Fl. Ob. Bsn. Bcl.

175 fff fff fff fff p

Hn. Tp. Tbn.

175 fff fff fff p

\downarrow 80 Fateful

tom snare Cymb.

175 ff ff f

Vibr. cymb. tam-tam w. block

175 ff f

Pno

175 ff ff

el.

\downarrow 80 Fateful

Vno I Vno II Vla. Vcl. Cb.

175 fff fff Glissando Glissando Glissando pp

Glissando Glissando Glissando Glissando ala Bartók ala Bartók

A. Fl. Ob. Bcl. Bsn. Hn. Tp. Tbn.

tom snare
 Tam-tam
 triangle
 w. block

hold with the hand

Cymb. f

Vibr. sfz pp ff

cymb.
 tam-tam
 w. block

Pno sfz pp ff

el. (55) Vcl Pitch 4
 Vcl Delay 7

Vno I pp ff

Vno II pp ff

Vla pp ff

Vcl ff molto express.
 piu rubato ricochet molto vibr.

Cb arco pp ff

GP

A. Fl. Ob. Bcl. Bsn. Hn. Tp. Tbn.

piu rubato

tam-tam *ff* *mf* tam-tam *ff* *mf* *p* *fff*

Vibr. Tam-tam

Pno

(56) *Vcl Pitch Fade out*
Vcl Delay Fade out
Perc Pitch 10
pizz *Perc Delay 2*
ala Bartók

(57) *HSeq start*

Vno I Vno II Vla Vcl Cb

pizz *ala Bartók* *ff*

pizz *ala Bartók* *ff*

pizz *ala Bartók* *ff*

pizz *ala Bartók* *ff*

180 **GP** 180 **GP** 180 **GP** 180 **GP**

K ♫ = 120 Hard

A. Fl. ff

Ob. ff

Bcl. ff

Bsn. ff

Hn. f

Tp. f

Tbn. f Glissando > p → f

K ♫ = 120 Hard

tom -

Snare snare

Cymb. ff

Glock. -

Tam-tam tam-tam china

Pno ff senza pedale

el. 58 Perc Pitch fade out
Perc Delay fade out
Sample 15

K ♫ = 120 Hard

Vno I pizz ff

Vno II pizz ff

Vla arco > ff

Vcl arco > ff

Cb arco > ff

sul A > Glissando f molto express.

sul A > Glissando f molto express.

sul G > Glissando f molto express.

sul G > Glissando f molto express.

f fp molto express.

$\downarrow = 60$ Heavenly

185

A. Fl. Ob. Bcl. Bsn.

L $\downarrow = 80$ Strictly

185

Hn. Tp. Tbn.

$\downarrow = 60$ Heavenly

185

tom Snare Cymb.

L $\downarrow = 80$ Strictly

185

Glock. Cymb. Pno

Flut Delay 5
Vno Delay 7
Vcl Delay 8

(59)

(60) Flut Delay fade out
Vno Delay fade out
Vcl Delay fade out
Sample 16 Paf 13

L $\downarrow = 80$ Strictly

185

Vno I Vno II Vla Vcl Cb

espress. arco sul pont. naturale espress. Glissando

espress.
 A. Fl. *mf*
 Ob. *mf*
 Bcl. *mf*
 Bsn. *mf*
 Hn.
 Tp.
 Tbn.

 tom
 Snare *fp*
 Cymb.
 Vibr. *p*
 Cymb. b. di vibraf. *tr*
 Pno *pp* *mf*
 el. *Flut Delay 6*
Vno Delay 8
Vcl Delay 9
 Strictly
 Vno I *mf*
 Vno II
 Vla
 Vcl Strictly
 Cb

A. Fl. *pp* *p* *frull.*
 Ob. *pp*
 Bcl. *pp* *pp*
 Bsn. *pp* *pp*
 Hn.
 Tp. *f*
 Tbn. *f*

 tom
 Snare *f* *p* *f*
 Cymb. *ppp* *p* *pp* *mf*
 Vibr. *p* *f*
 Cymb. *mf* *splash* *mf* *p* *circling on the edge decreasingly*
 Pno. *p* *f*
 el. *62* Flut Delay fade out
 Vno Delay fade out
 Vcl Delay fade out
 HSeq read paf4.mid
63 Paf 12
64 Paf fade out
 HSeq read vcl3.mid

 Vno I *pp*
 Vno II *pp*
 Vla *pp*
 Vcl *pp*
 Cb *pizz* *molto vibr.* *arco* *pp*

M ♩ = 100 Stringently

A. Fl. f

Ob. f

Bcl. ♩ f

Bsn. ♩ f

Hn. 8vb f

Tp. mf

Tbn. f

M ♩ = 100 Stringently

tom -

Snare snare p mf

Cymb. f

Vibr. -

Tam-tam tam-tam

Pno f p pp mf

el. -

Vno I f Glissando f 200 pp sul pont.

Vno II f Glissando f pp sul pont.

Vla f Glissando f pizz. mf

Vcl f Glissando ala Bartók pizz. arco espress. pp mf

Cb f espress. pizz. pp mf

A. Fl. *frull.*
Ob.
Bcl.
Bsn.

Hn.
Tp.
Tbn.

Heavenly
tom
Tam-tam
Cymb. *pp*

Vibr.
Tam-tam

Pno
el.

Vno I
Vno II
Vla
Vcl
Cb

80 Heavenly
arco sul tasto
65 Paf 14 Vcl Pitch 6 Vcl Delay 10
tongue ram
slap tongue
tongue ram
205
205
mf
pp
p
mf
pp
mf
pp
pp
mf
pp
mf
pp
mf
pp

N ♩ = 100

A. Fl. Ob. Bcl. Bsn.

3/4 3/4 3/4 3/4

pp pp pp pp

Hn. Tp. Tbn.

3/4 3/4 3/4

fp fp fp

#o. mfp mf mf

210 210

N ♩ = 100

tom Tam-tam Cymb.

3/4 3/4 3/4

c c c

tam-tam mf mf

Vibr. Tam-tam

3/4 3/4 3/4

mf mf p

arco (contrabass bow) ♩

210 210

Pno el.

3/4 3/4 3/4

p p

3/4 3/4 3/4

* * *

66 Sample 17 67

Vcl Pitch fade out
Vcl Delay fade out
Perc Pitch 13
Vno Pitch 11
Vno Delay 9

N ♩ = 100

Vno I Vno II

3/4 3/4

ff ff

sul G solo express. 210

Vla

3/4 3/4

ff ff

pp pp

Vcl Cb

3/4 3/4

very softly pizz arco espress. ff ff

Glossy pizz ala Bartók

arco pp

J = 50

A. Fl. Ob. Cl. Bsn. Hn. Tp. Tbn.

215

Measure 50: A. Fl. eighth-note pattern, Ob. eighth-note pattern, Cl. eighth-note pattern, Bsn. eighth-note pattern. Measure 51: Hn. sustained note, Tp. sustained note, Tbn. sustained note.

J = 50

tom Tam-tam Cymb. Vibr. Tam-tam Pno el. Vno I Vno II Vla Vcl Cb

215

Measure 50: Vibr. arco (contrabass bow), Tam-tam eighth-note pattern, Cymb. eighth-note pattern, Pno eighth-note pattern, el. eighth-note pattern, Vno I eighth-note pattern, Vno II eighth-note pattern, Vla eighth-note pattern, Vcl eighth-note pattern, Cb eighth-note pattern. Measure 51: Tam-tam eighth-note pattern, Pno eighth-note pattern, el. eighth-note pattern, Vno I eighth-note pattern, Vno II eighth-note pattern, Vla eighth-note pattern, Vcl eighth-note pattern, Cb eighth-note pattern. Measures 68-70: Vno I melodic line with circled labels '68 Vno Pitch 12', '69 Vno Pitch 13', and '70 Vno Pitch 14'. Measures 71-72: Vno I melodic line with dynamic changes (mf, p, f).

O ♩ = 80 Re - discovering
of discovered

220

A. Fl. *frull.* **p**

Ob. **pp**

Bcl. *slap tongue* **mf**

Bsn. **pp**

Hn.

Tp.

Tbn. *Glissando* **p** **fp**

O ♩ = 80 Re - discovering
of discovered

220

tom

Tam-tam

Cymb.

Vibr. **f** *Reo.*

Vibr. **f** **mf** *Reo.*

Tam-tam

Pno **mf** **p** *Reo.* **mf**

el. *Reo.* **mf**

(71) Paf 15 (72) Paf fade out
Vno Pitch fade out
Vno Delay fade out
Perc Pitch fade out
HSeq read samples5.mid

(73) Samples 18

O ♩ = 80 Re - discovering
of discovered

220

Vno I *sul pont.* **p**

Vno II **p**

Vla *sul pont.* **p**

Vcl *sul pont.* **p**

Cb *sul pont.* **p** *Glissando* **mf** **pizz.** **p**

A. Fl. Ob. Bcl. Bsn. Hn. Tp. Tbn.

225 continuously change to frull.

tom Snare Cymb. Vibr. Tam-tam

with hand snare hand on the edge glockenspiel vibraphone

Pno el.

Flut Pitch 8
Vcl Delay 12
HSeq read flut4.mid 74

Flut Pitch 9
Flut Delay 7
Paf 16 75

Vno I Vno II Vla Vcl Cb

sul pont. 225 pp sul pont. pizz sul G arco

pp pp pp pp pp

A. Fl. Ob. Cl. (clarinet in Bb) Bsn. Hn. Tp. Tbn.

tom Triang. Cymb. Vibr. Tam-tam

Pno. el. Vno I Vno II Vla. Vcl. Cb.

Measures 5 through 7 are shown. Measure 5 starts with a rest for most instruments. Measure 6 begins with a melodic line for the clarinet in Bb. Measure 7 continues with the melodic line and includes dynamic markings like *p*, *espress.*, and *frull.*. Measures 8-10 show the percussion section (tom, triangle, snare, cymbals, tam-tam) with various dynamics and effects like *mf*, *fp*, and *glockenspiel*. Measures 11-13 show the piano (Pno) and electric piano (el.) playing eighth-note patterns with dynamic markings like *mf*, *p*, and *sempr. mf*. Measures 14-16 show the woodwind section (Vno I, Vno II, Vla., Vcl., Cb.) playing sustained notes with dynamic markings like *p*, *con sordino*, and *sul G*.

A. Fl. 235
 Ob.
 Cl.
 Bsn.
 Hn. 235
 Tp.
 Tbn.

 tom
 Triang. triangle
 Cymb.
 Vib.
 Tam-tam

 Pno 235
 el.
 el.
76 Flut Pitch off Sample 6

 Vno I 235
 Vno II
 Vla
 Vcl
 Cb

A. Fl. Ob. Cl. Bass clarinet Hn. Tp. Tbn.

tom snare Tam-tam triangle w. block Cymb. arco (contrabass bow) m^f

Vibr. Tam-tam

Pno el.

Vno I Vno II Vla. Vcl. Cb.

aeolian sound

Bass clarinet

arco (contrabass bow)

col legno ricochet
to be played behind the bridge

col legno ricochet
to be played behind the bridge

col legno ricochet
to be played behind the bridge

col legno ricochet
to be played behind the bridge

sul pont.

Sample 19
77 Vno Delay 10
Vel Delay 11

pizz.

P ♩ =60 Heart being heard

240

A. Fl. *pp*

Ob. *pp*

Bcl. *pp*

Bsn. *pp*

multiphonic *mf*

5

240

Hn. *p*

Tp. *p*

Tbn. *Giss.* *mf*

P ♩ =60 Heart being heard

240

tom *with hand* *mf*

Snare *p*

Cymb. *with hand* *p*

snare *pp*

3

240

Vibr. *p*

Tam-tam *tam-tam* *p*

8va

Pno *p* *pp*

5 *5*

2ed.

79 Paf 17 Sample 20

78 Vno Delay fade out
Vcl Delay fade out
HSeq read samples6.mid

P ♩ =60 Heart being heard

240

Vno I *arco* *pp*

Vno II *arco* *pp*

Vla *arco* *pp*

Vcl *arco* *pizz*
molto vibr.

Cb *p*

sul pont. *ppp* *p*

sul pont. *ppp* *p*

sul pont. *ppp* *p*

sul pont. *ppp* *p*

arco *sul pont.* *ppp* *p*

245 *tongue ram*

A. Fl. *mf*

Ob.

Bcl. *slap tongue* *mf*

Bsn. *p*

Hn. 245 *aeolian sound* *mf*

Tp. *aeolian sound* *mf*

Tbn. *aeolian sound* *mf*

tom

Tam-tam *tam-tam* *p*

Cymb.

Glock. 245 *glockenspiel* *p* *pp*

Tam-tam

Pno. *mf* *p* *8va-* *15ma*

Reo.

el. *(80) Paf out*

Vno I 245 *naturale* *mf* *p* *col legno ricochet* *pizz* *p*

Vno II *naturale* *mf* *p* *col legno ricochet* *pizz* *p*

Vla. *naturale* *mf* *p* *col legno ricochet* *pizz* *p*

Vcl. *naturale* *mf* *p* *col legno ricochet* *pizz* *p*

Cb. *p* *8va-* *pizz*

p

255

aeolian sound

A. Fl. Ob. Bcl. Bsn.

Hn. Tp. Tbn.

tom snare Tam-tam triangle w. block Cymb.

Glock. Wood bl.

Pno.

el.

Vno I Vno II

Vla. Vcl. Cb.

aeolian sound

mf

255

ppp *p*

wood-block

p

81 Fl Delay 8 HSSeq read paf5.mid

82 cca 7 seconds

83 Fl Delay fade out Paf 18

cca 7 seconds

Paf fade out

arco

ppp

255

8