

# AERIAL VARIATIONS

for Alto Saxophone, Chamber Orchestra  
and Interactive Electronics

JOSEPH WILLIAM ROVAN, JR.

# Instrumentation

Alto Saxophone in E-flat

- 1 Flute
- 1 Oboe
- 1 Clarinet in B-flat, doubling on Bass Clarinet
- 1 Bassoon

- 1 Horn in F
- 1 Trumpet in C
- 1 Trombone

2 Percussion:

- I: 1 Bass Drum (B.Dr.)
- 3 Tom-Toms (T.T.)
- 2 Bongos
- 1 Tam-Tam (Tam-T.)
- 1 Gong (small)
- 3 Suspended Cymbals (Sus. Cym.) of graduated size
- 1 Triangle (Trgl.)
- 1 Slapstick
- 2 Woodblocks (W.B.) of graduated size
- Glockenspiel
- Marimba
- Beaters: Bass Drum beater, sticks, pencils with rubber eraser ends, Tam-Tam/Gong beater, soft and medium mallets, triangle beater, brass mallets

- II: Vibraphone
- Snare Drum
- Glockenspiel
- Beaters: soft and medium mallets, sticks, brass mallets

- 1 Harp
- 1 Piano
- 2 Violins
- 1 Viola
- 1 Cello
- 1 Double Bass

The score is notated in C  
Duration: ca. 22 minutes

Alto Saxophone alternate and multiphonic fingerings:

The diagram illustrates fingerings for the Alto Saxophone (Eb) and Clarinet (C). It shows two staves of music with fingerings indicated by black dots (filled) and white circles (open). The top staff is for the Alto Saxophone in E-flat (Eb) and the bottom staff is for the Clarinet in C (C). The notation includes fingerings for notes A, B, C, D, and E, with specific fingerings for trills and multiphonics. The Eb staff shows fingerings for notes A, B, C, D, E, A, and B. The C staff shows fingerings for notes C, Bb, C, Bb, C, C, and Eb. The notation includes fingerings for notes A, B, C, D, and E, with specific fingerings for trills and multiphonics.

# Performance Notes

The interactive electronics deployed in “Aerial Variations” are in part controlled by the gestural movement of the solo alto saxophonist. Gestural information is captured via an infrared motion device and then analyzed by the computer; absolute position as well as velocity and acceleration of the soloist’s gestures are used. It is important that the soloist not feel constricted by the gestural part of the score; instead, the hardware and software offer various sensitivity adjustments such that the soloist can use their natural expressive gestures, transforming them through the electronics into a means of controlling the computer interaction and sonic evolution of the piece.

Regarding the 7:8 triplets and related figures in measures 105 – 120 of the flute and horn, as well as in measure 122 of the flute, oboe, horn, trumpet, and trombone: synchronicity between instruments playing these figures is not absolutely necessary. Hash marks are offered in all parts as a metrical guide only.

## Technical Requirements for the Interactive Electronics

- Computer running MaxMSP (full install or runtime version)
- MIDI interface
- Firewire or USB Audio interface with at least one audio input and stereo output (this may also contain the MIDI interface). Four channel output required for quad version (see note below).
- Infrared motion capture device (hereafter referred to as “controller”), Interactive Light’s “Dimension Beam” or equivalent (available from the composer). NOTE: the Dimension Beam projects a spherical region of sensitivity, within which it is responsive to movement. In order to register the movement of the soloist accurately, it is necessary to attach a small piece of reflective tape to the bell of the saxophone.
- MaxMSP program for “Aerial Variations.” Available from the composer. The included README file details important operation and configuration settings.
- Bell-mounted microphone for the alto saxophone: AKG C419 clip-on or equivalent. NOTE: it is important to position the microphone to pick up an even balance of the saxophone range, pointing the mic somewhat toward the tone holes.
- Mixing board and stereo sound system

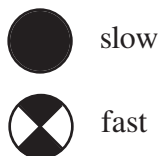
### OPTIONAL:

- Four-channel sound system. NOTE: the main purpose of channels 3 and 4 is to disassociate certain sound elements from the stage. Thus the deployment of the two added speakers can be achieved in many ways, without necessarily representing a technically “accurate” surround-sound configuration.

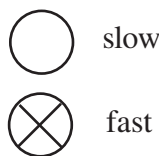
## Notes Regarding Gestural Symbols for the Soloist

The following symbols in the soloist’s part denote different types of gesture to use within the virtual space projected by the infrared controller:

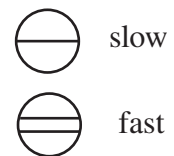
### Enter controller range:



### Exit controller range:



### Motion within controller range:



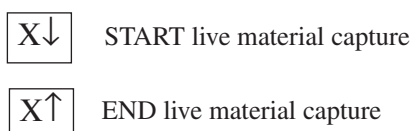
### Hold at top end of controller range:



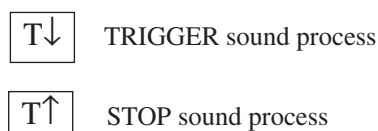
## Notes Regarding Electronic Processes

The following symbols in the score represent different types of actions taken by the computer in response to either: gestural movement of the soloist; sound produced by the soloist; sound produced by members of the orchestra (captured via the microphones placed in the orchestra); action by the computer operator; or any combination of the above.

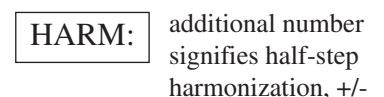
### Real-time capture of sound material:



### Computer process control:



### MSP Harmonizer control:



## AERIAL VARIATIONS

for Alto Saxophone, Chamber Orchestra and Interactive Electronics

Joseph William Rován, Jr.

*Aerial Variations* is an exploration of interactive electronics in the context of the concerto genre. The traditionally contrasting relationship between soloist (here an alto saxophone) and orchestra is further enhanced in this concerto by the presence of an electronic voice whose activity the soloist directly controls. By means of his own performance gestures, the saxophonist gives rise to the electronic material, which takes flight from the orchestra like another, unseen soloist who soars above the ensemble to form the series of aerial variations alluded to in the title.

The absolute position as well as the velocity and acceleration of the soloist's gestures are captured by an infrared motion device and then immediately analyzed by means of software designed by the composer specifically for this piece. The derived gestural data is applied to the control of various digital signal processing methods, including real-time sampling, harmonization, granular sampling, convolution, frequency shifting, and additive synthesis. In order to gather sonic material for these processes, microphones are placed on the solo saxophone, on the orchestra as a whole, as well as on selected solo instruments within the ensemble. The electronic score thus serves as a means to connect the timbral worlds of soloist and orchestra.

Articulated in three broad sections, *Aerial Variations* further plays on the metaphor of flight by making brief reference to the music of two famous birdmen, Olivier Messiaen and Charlie Parker.

# AERIAL VARIATIONS

JOSEPH W. ROVAN

for Alto Saxophone, Chamber Orchestra and Interactive Electronics

3/4  $\text{♩} = \text{ca. } 50$

1 5/4

Flute *f sfz*

Oboe *f sfz*

Clarinet in B *f sfz*

Bassoon *pp* *senza vib.* 3 *f sfz*

Horn in F *sfz* *f*

Trumpet in C *sfz* *f*

Trombone *sfz* *f*

Percussion I *pp* *cresc. poco a poco* B.Dr.

Percussion II *sfz* *vibraphone medium mallets* *motor off*

Harp *f* *sec* *D<sup>c</sup>* *G<sup>c</sup>*  
*\* all chords are to be played non arpeggiato, unless otherwise indicated*

Piano *f* *8va* 6 7

Alto Sax

Electronics

Violin I *mf* *f* *tr<sup>b</sup>* 3

Violin II *mf* *f* *tr<sup>b</sup>* 3

Viola *mf* *f* *tr<sup>b</sup>* 3

Cello *f* *sul pont.*

Double Bass *pp* *f* *gliss.*

1 3/4 5/4

5/4 4/4 *poco rall.*

Fl. *ff* *f* *mf*

Ob. *ff* *f*

Cl. alt. fingering (A) flt. *ff* *sfz* *f* *mf*

Bsn. *f* *pp* *sfz* *mp*

Hn. *ff* *sfz* *f*

Trp. *sfp* *sfz* *f*

Trb. slow gliss. - *sfp* *pp* *sfz* *f*

Perc. I *ff* *sfz* *f* *pp*

Perc. II *f* *mf* l.v.

Hp. *mf* *sec* E 5:4 E' A 5:4 *près de la table*

Pno. *f* *sec*

A.S.

El.

Vln. I *mp* *f* *pizz.*

Vln. II *mp* *f* *pizz.*

Vla. *f* *jeté* irregular 1/4 tone variations (+/-)

Vc. ord. *f* *sul pont.* *gliss.*

D.B. *f* *pizz.* *gliss.*

Calmato (♩ = 45)

5  
4

Fl. *mp* *legatissimo*

Ob.

Cl. *mp* *legatissimo*

Bsn.

5  
4

Hn. *mp*

Trp.

Trb.

5  
4

Perc. I Low Sus. Cym. High Sus. Cym.  
soft mallets *p*

Perc. II

Hp.

Pno.

5  
4

A.S.

El.

5  
4

Vln. I

Vln. II

Vla.

Vc.

D.B.

7  $\frac{5}{4}$   $\frac{4}{4}$

Fl.

Ob.

Cl.  $\frac{5:4}$  slow gliss. +  $\frac{5:4}$

Bsn.

Hn.  $\frac{5}{4}$   $\frac{4}{4}$

Trp.

Trb. straight mute *p*

Perc. I  $\frac{5}{4}$   $\frac{4}{4}$  Sus. Cym. stick end *p*  $\frac{3}{4}$  on bell

Perc. II

Hp.

Pno.

A.S.  $\frac{5}{4}$   $\frac{4}{4}$

El.

Vln. I  $\frac{5}{4}$   $\frac{4}{4}$

Vln. II

Vla.

Vc.

D.B.





13

Fl.

Ob. *slow gliss. -*

Cl. *gliss.*

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I *con sordino*

Vln. II *con sordino* *p*

Vla. *con sordino*

Vc. *con sordino* *p*

D.B.

Detailed description of the musical score: The score is divided into systems for woodwinds, strings, and percussion. The woodwind section includes Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), and Bassoon (Bsn.). The string section includes Horn (Hn.), Trumpet (Trp.), Trombone (Trb.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (D.B.). The percussion section includes Percussion I (Perc. I), Percussion II (Perc. II), Harp (Hp.), and Piano (Pno.). Measure 13 shows the Flute and Clarinet playing triplets, while the Oboe has a 'slow gliss.' and the Clarinet has a 'gliss.'. Measure 14 continues these patterns, with the Clarinet playing a quintuplet and the strings playing a rhythmic accompaniment. The strings are marked 'con sordino' and 'p' (piano).

15

Fl. *gliss.*

Ob.

Cl. *gliss.*

Bsn.

Hn.

Trp.

Trb. *senza sordino*

Perc. I *Low Sus. Cym.*

Perc. II *pp* *no cresc.*

Hp.

Pno.

A.S.

El.

Vln. I *p*

Vln. II

Vla. *p*

Vc.

D.B. *mf* *gliss.*

Detailed description of the musical score: The score is for measures 15, 16, and 17. The Flute (Fl.) part has a glissando in measure 17. The Clarinet (Cl.) part has a glissando in measure 17. The Bassoon (Bsn.) part has a glissando in measure 17. The Horn (Hn.) part has a glissando in measure 17. The Trumpet (Trp.) part has a glissando in measure 17. The Trombone (Trb.) part has a glissando in measure 17. The Percussion I (Perc. I) part has a glissando in measure 17. The Percussion II (Perc. II) part has a glissando in measure 17. The Harp (Hp.) part has a glissando in measure 17. The Piano (Pno.) part has a glissando in measure 17. The Violin I (Vln. I) part has a glissando in measure 17. The Violin II (Vln. II) part has a glissando in measure 17. The Viola (Vla.) part has a glissando in measure 17. The Violoncello (Vc.) part has a glissando in measure 17. The Double Bass (D.B.) part has a glissando in measure 17.



*accel.*

Fl. *mp* *f* 3

Ob. *f* 3

Cl. *mp* *f*

Bsn. *f*

Hn. *gliss.* *sfz* 3 *mf*

Trp.

Trb. *mf*

Perc. I B.Dr. *p* *mf* *p* *mf*

Perc. II vibraphone *mf*

Hp. *f* E

Pno. *pluck strings* *mf* *mf* 8<sup>th</sup>

A.S.

El.

Vln. I *arco* *cresc.* 5

Vln. II *cresc.* 5

Vla. *arco* *cresc.* 5

Vc. *ord.* *pizz.* *arco* 5

D.B. *ord.* *gliss.* *wide and irregular vibrato* *sfz* *sul E*

*f* *###*

(accel.)

Più animato (♩ = 82)

23 *tr<sup>b</sup>*  $\frac{2}{4}$   $\frac{4}{4}$   $\frac{3}{4}$

Fl. *f* > *mf* *tr<sup>b</sup>*

Ob. *f* > *mf* *tr<sup>b</sup>*

Cl. *f* > *mf*

Bsn. *tr<sup>b</sup>*  $\frac{2}{4}$   $\frac{4}{4}$   $\frac{3}{4}$  *f*

Hn.  $\frac{2}{4}$   $\frac{4}{4}$   $\frac{3}{4}$  *f*

Trp. *f*

Trb. *sfz*  $\frac{2}{4}$   $\frac{4}{4}$   $\frac{3}{4}$  *f*

Perc. I Triangle *mp*

Perc. II *f* to snare drum

Hp. *gliss.* *f sec* *mf*

Pno. *f*

A.S.  $\frac{2}{4}$   $\frac{4}{4}$   $\frac{3}{4}$

El.

Vln. I *f* *pizz.*

Vln. II *f* *pizz.*

Vla. *f* *pizz.*

Vc. *f* *pizz.*

D.B. *wide and irregular vibrato* *f* *pizz.* *gliss.*

26  $\frac{3}{4}$   $\frac{2}{4}$   $\frac{4}{4}$

Fl. *f.* *ff* *f*

Ob. *f.* *ff* *f*

Cl. *f.* *ff* *f*

Bsn.

Hn. *mf* *sfz* *f*

Trp. *sfz* *sfp* *cresc.*

Trb. *sfz* *f* *f*

Perc. I  $\frac{3}{4}$   $\frac{2}{4}$   $\frac{4}{4}$   
*mp* High W.B. *f*

Perc. II S.D.R. Rimshot *p* *f* Rimshot *Lv.*

Hp. *D* *ff* *D E f*

Pno. *tr.* *mf* *ff*

A.S.  $\frac{3}{4}$   $\frac{2}{4}$   $\frac{4}{4}$

El.

Vln. I  $\frac{3}{4}$   $\frac{2}{4}$   $\frac{4}{4}$

Vln. II

Vla.

Vc. *arco*

D.B. *gliss.* *pizz.*

29  $\frac{4}{4}$  *rall.* ----- *rubato*

Fl. *mf*  $\underline{3}$   $\underline{6}$

Ob. *mf* *tr*  $\underline{3}$   $\underline{6}$

Cl. *mf*  $\underline{3}$   $\underline{6}$

Bsn. *mp*

Hn. *mp*

Trp.

Trb.

Perc. I 29  $\frac{4}{4}$  (W. Blks) *mf* Low Sus. Cym. stick end *mf* scrape *mf*

Perc. II to vibraphone

Hp. *mf*  $\underline{3}$   $\underline{6}$   $\underline{6}$  D' E' F' G A

Pno.

A.S. *sfp*  $\boxed{X \downarrow}$  w.winds  $\boxed{X \uparrow}$   $\boxed{T \downarrow}$  w.winds  $\boxed{T \uparrow}$  *mf* fine tune to unison

El. HARM: -10 HARM: +1

Vln. I *f* arco pizz.

Vln. II *f* arco pizz.

Vla. *f* arco pizz.

Vc. *f* arco pizz.

D.B. *f* arco pizz.

Alla misura (♩ = 50)

2/4

4/4

Fl. 32 pop keys with attack lip bend *sfz* *p* *mf* lip bend

Ob.

Cl. 1/2 hole gliss. *p*

Bsn.

Hn. 32 gliss. *sfz* *p*

Trp.

Trb.

Perc. I 32 Gong l.v. to marimba *pp*

Perc. II vib. *p* soft mallets l.v.

Hp. *mp*

Pno. *f* sec

A.S. 32 *mf* *s* *4:3*

El. *autofade* HARM: +2 HARM: 0

Vln. I 32 arco sul pont. *mf* *mp* *6* *7*

Vln. II

Vla.

Vc. pizz. *f*

D.B. arco *mf*

Più animato (♩ = 82)

♩ = 50

3/4

4/4

Fl. *mp*

Ob.

Cl. *mp* *p*

Bsn.

Hn.

Trp. *sfz mp* harmon mute

Trb.

Perc. I *mf* soft mallets marimba *sfp*

Perc. II *mf* vibraphone

Hp. *mf* E

Pno. *mf*

A.S.

El.

Vln. I *mf* pizz. arco sul pont. *mp*

Vln. II *mf* pizz. arco sul pont. *mp*

Vla. *mf* pizz. arco sul pont. *mp*

Vc. *mf*

D.B. *mf*

Più animato (♩ = 82)

38 4/4

Fl.

Ob. *mf* *legato*

Cl.

Bsn. *mf* *legato*

Hn.

Trp. *sfp*

Trb. straight mute *sfp*

Perc. I *mf*

Perc. II *mf*

Hp. *mf* E A

Pno.

A.S.

El.  percussion

Vln. I sul pont. ord.

Vln. II sul pont. ord.

Vla.

Vc.

D.B. *sfz*

40 *rubato*

Fl. *mf*

Ob. *mf* 3

Cl. *mf*

Bsn.

Hn.

Trp. senza sordino

Trb.

Perc. I 6 6

Perc. II 5 5

Hp. A A

Pno.

A.S. *stringendo*

flute  X ↑  T ↓ gran./convolve perc.  T ↑

El. Freq. Shift #1

Vln. I ord. sul tasto

Vln. II ord. sul tasto

Vla.

Vc.

D.B.



45  $\frac{4}{4}$   $\text{♩} = 50$  *accel.* -----  $\frac{5}{4}$   $\text{♩} = 80$   $\frac{4}{4}$

Fl. *mf* *f*

Ob. *mf* *f*

Cl. *mf* *f*

Bsn.

Hn. *sfp* *f* *cuivré*

Trp. *mp* *f* (senza sordino)

Trb. *sfp* *f* straight mute

Perc. I *p* *f* Low Sus. Cym. Triangle *pp*

Perc. II *mp* *f* vibraphone

Hp. *f* C

Pno. *f*

A.S. *sfz* *f* *tr*  $\frac{7}{8}$   $\frac{7}{8}$

El. HARM: +2/-11 *feedback*

Vln. I *f* *mf* *jeté* *sul pont.*

Vln. II *f* *mf* *jeté* *sul pont.*

Vla.

Vc. *sfz* *f* *tr*

D.B.

Poco adagio (♩ = 55)

47 4/4

Fl. *sfz* *sfz*

Ob. *sfz*

Cl. *mf* *espressivo*

Bsn.

Hn. *mf* *gliss.* *sfz*

Trp.

Trb. *sfz*

Perc. I *mf* l.v.

Perc. II *f* l.v.

Hp.

Pno. *f*

A.S. *mp* *mf* *Sub* *multiphonic A* *X ↓* *X ↑* *T ↓* *multi resonance/freq. shift*

El.

Vln. I *mp*

Vln. II *mp*

Vla. *mf* *espressivo* *gliss.*

Vc. *mp* *sul tasto* *gliss.*

D.B. *mf*



53

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*f*  $\underline{5}$

*f*  $\underline{3}$   $\underline{3}$   $\underline{6}$

gliss.  $\underline{3}$

*mp*

*p* *mp* l.v.

C E G A

*p*

8<sup>vb</sup>

flute  $\boxed{T \downarrow}$  *autofade*

flute → a. sax → flute ∅

*espressivo*

Detailed description of the musical score: The score is for measures 53, 54, and 55. It includes parts for Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Trumpet (Trp.), Trombone (Trb.), Percussion I (Perc. I), Percussion II (Perc. II), Harp (Hp.), Piano (Pno.), Alto Saxophone (A.S.), Electric Bass (El.), Violin I (Vln. I), Violin II (Vln. II), Viola (Vla.), Violoncello (Vc.), and Double Bass (D.B.).  
 - Flute (Fl.): Measures 53-55, starting with a rest, then playing a melodic line with dynamics *f* and articulation marks  $\underline{5}$ ,  $\underline{3}$ ,  $\underline{3}$ , and  $\underline{6}$ .  
 - Oboe (Ob.): Measures 53-55, playing a melodic line with dynamics *f* and articulation marks  $\underline{3}$ ,  $\underline{3}$ , and  $\underline{6}$ .  
 - Clarinet (Cl.): Measure 53, playing a triplet with a glissando (gliss.) and a  $\underline{3}$  articulation mark.  
 - Bassoon (Bsn.): Measures 53-55, playing a low melodic line.  
 - Horn (Hn.): Measures 53-55, playing a harmonic line with dynamics *mp* and a  $\flat$  symbol.  
 - Trumpet (Trp.): Measures 53-55, playing a harmonic line.  
 - Trombone (Trb.): Measures 53-55, playing a harmonic line.  
 - Percussion I (Perc. I): Measures 53-55, playing a rhythmic pattern.  
 - Percussion II (Perc. II): Measures 53-55, playing a rhythmic pattern with a vibraphone.  
 - Harp (Hp.): Measures 53-55, playing a chord progression (C, E, G, A) with dynamics *p* and *mp*, and a l.v. (left hand) marking.  
 - Piano (Pno.): Measures 53-55, playing a melodic line with dynamics *p* and an 8<sup>vb</sup> marking.  
 - Alto Saxophone (A.S.): Measures 53-55, playing a melodic line with dynamics *autofade* and a  $\boxed{T \downarrow}$  marking.  
 - Electric Bass (El.): Measures 53-55, playing a melodic line with dynamics *autofade* and a  $\rightarrow$  marking.  
 - Violin I (Vln. I): Measures 53-55, playing a melodic line.  
 - Violin II (Vln. II): Measures 53-55, playing a melodic line.  
 - Viola (Vla.): Measures 53-55, playing a melodic line.  
 - Violoncello (Vc.): Measures 53-55, playing a melodic line with dynamics *espressivo* and a  $\underline{3}$  articulation mark.  
 - Double Bass (D.B.): Measures 53-55, playing a melodic line.

Fl. *mp*

Ob. *mp*

Cl. *mp*

Bsn. *mp*

Hn. *mp*

Trp. *mp*

Trb.

Perc. I Glsp. l.v. *p*

Perc. II l.v. *mp*

Hp.

Pno. *mp* non arpegg. *mp* una corda *sed.*

A.S. *mf* cantabile

El.

Vln. I *mp* con sordino

Vln. II *mp* con sordino

Vla. *mp* con sordino

Vc.

D.B. *mf* pizz.



4/4

62

Fl. *mp*

Ob. *mp*

Cl. *mp*

Bsn.

4/4

62

Hn. *mp*

Trp. *mp*

Trb.

4/4

62

Perc. I

Perc. II

Hp. *l.v.*

Pno. *non arpegg. mp*

*una corda*

4/4

62

A.S. *3*

El.

4/4

62

Vln. I *mp sfz*

Vln. II *mp sfz*

Vla. *mp sfz*

Vc.

D.B. *sfz*

65

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*mp*

*mf*

*mp*

*mp*

*tre corde*

*accel. pulses*

**T** ↓ **T** ↑ **T** ↓

**HARM: +6** **Freq. Shift** **HARM: 0**

∅ violin harmonic → a. sax

*mp*

67

Fl.

Ob. *mp*

Cl. gliss. *mp*

Bsn. *mp*

Hn. *mp*

Trp. *mp*

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S. 5 6

El. T ↑

Vln. I

Vln. II *mp*

Vla. *mp*

Vc.

D.B. *mp*

69

Fl.

Ob.

Cl. *tr<sup>b</sup>* *f* *tr* *mp*

Bsn. *mp*

Hn. *ouvert* *f*

Trp. *mp*

Trb. *f*

Perc. I Glsp. l.v. *p*

Perc. II vibraphone *f* l.v. arco l.v. mallets *mf* *s*

Hp. l.v. *mf*

Pno. *mf* *3* *7*

A.S. *11.8* *red.* *una corda* *T ↓ resonant filter* *accel. pulses* *3*

El.

Vln. I *8va* *tr<sup>b</sup>* *f*

Vln. II *tr<sup>b</sup>* *f*

Vla. *tr<sup>b</sup>* *f* *senza sordino*

Vc. *tr<sup>b</sup>* *f* *(b<sub>2</sub>)*

D.B. *tr<sup>b</sup>* *f* *mp*

72

Fl. *mp* *f*

Ob. *mp* *mp*

Cl. *mf* *f*

Bsn. *f*

Hn. *f*

Trp. *f*

Trb. *f*

Perc. I High W.B. *p* *mf*

Perc. II *f* *mf* l.v.

Hp. *f* *son étouffés* D

Pno. *f* *sec*

A.S. *tre corde*

El. *T ↑* *gran. violin* *noise component* *T ↓* *T ↑*

Vln. I *mp* *senza sordino* *con sordino* *f ord.*

Vln. II *senza sordino* *sul pont.* *f* *con sordino*

Vla. *con sordino* *f*

Vc. *mp* *senza sordino* *con sordino* *f*

D.B. *con sordino* *f*



*affrettando* .....  $\text{♩} = 75$  **Poco meno mosso** ( $\text{♩} = 70$ )

78  $\frac{5}{4}$   $\frac{4}{4}$   $\frac{3}{4}$   $\frac{4}{4}$

Fl. *ff* *mf*

Ob. *ff*

Cl. *ff* *mf*

Bsn.

Hn. *sfz* *f*

Trp. *sfz* *f* *solo* *f*

Trb. *sfz* *f*

Perc. I marimba medium mallets *f* *f* to Bongos

Perc. II vib. *f*

Hp. *f* *son étouffés*

Pno. *f*

A.S.  $\text{S}^{\text{pr}}$   $\text{T}^{\text{tr}}$   $\text{X}^{\text{tr}}$   $\text{X}^{\text{tr}}$

El. *convolved trumpet n. 78*

Vln. I *f* *pizz.* *gliss.* senza sordino

Vln. II *f* *pizz.* *gliss.* senza sordino

Vla. *f* *pizz.* *gliss.* senza sordino

Vc. *f* *pizz.* *gliss.* senza sordino

D.B. *f* *pizz.* *gliss.* senza sordino

81  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{4}{4}$

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*mf*

*f*

Key Slaps  
left hand  
*f* right hand

Bongos  
pencils (eraser end)  
*mf*

vibraphone arco  
*mf*

$\times \downarrow$  Bongos (store for m. 172)  $\times \uparrow$

sul tasto *mf* sul pont.

sul tasto *mf* sul pont.

*f* pizz.

*f* pizz.

*p*

*p*

*p*



Poco meno mosso (♩ = 70)

87

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*mf*

*mf*

*f*

*f*

*f*

*p* no cresc.

*mf* on bell

High Sus. Cym.

Sus. Cym.s

*f*

*f*

Gran./Freq. Shift

conv: chord m. 86/trumpet

trumpet

3/4

4/4

3/4

4/4

3/4

3/4

4/4

3/4

3/4

4/4

3/4



92  $\frac{4}{4}$   $\text{♩} = 75$  *rit.*

Fl. *ff*

Ob. *ff*

Cl. *ff*

Bsn. *f* *mf*

Hn. *f*

Trp. *f*

Trb. *f*

Perc. I *f* Med. Sus. Cym. Bongos/Tom-toms Tam-T. *mf*

Perc. II *f*

Hp.

Pno. *f*

A.S. *f*  $\text{X} \downarrow$   $\text{X} \uparrow$  *mp*

El.

Vln. I *ff* *f* *au talon*

Vln. II *ff* *f* *au talon*

Vla. *f* *f* *au talon*

Vc. *f* *f* *au talon*

D.B. *f* *f* *au talon*

*rit.* -----  $\frac{3}{4}$  *trattenuto*  $\frac{4}{4}$

Fl.

Ob.

Cl.

Bsn.

*mp*  $\frac{3}{4}$   $\frac{4}{4}$

Hn.

Trp.

Trb.

Perc. I  $\frac{3}{4}$   $\frac{4}{4}$   
94 to marimba

Perc. II

Hp.

Pno.

A.S.  $\frac{3}{4}$  ,  $\ominus$  (pan)  $\frac{4}{4}$   
94  $\overset{3}{\curvearrowright}$   $\overset{3}{\curvearrowright}$   $\overset{3}{\curvearrowright}$   
T↓ conv: m. 92/Tam-Tam T↑

El.

Vln. I  $\frac{3}{4}$   $\frac{4}{4}$

Vln. II

Vla.

Vc. *jeté*  $\overset{3}{\curvearrowright}$  *sfz* *mf*

D.B.

4/4 ♩ = 45

Leggermente (♩ = 80)

96 4/4

Fl.

Ob.

Cl. to Bass Clarinet

Bsn.

Hn.

Trp.

Trb.

Perc. I  
marimba soft mallets  
*mf* 6:4 6:4 6:4

Perc. II  
vibraphone  
*mf* 5:4 5:4 5:4

Hp.  
E

Pno.

A.S.  
*mf* ⊗ ● ⊖ ○  
T ↓ autopan T ↑

El.  
HARM: -1

96 4/4

Vln. I

Vln. II

Vla.  
con sordino  
*mp*

Vc.  
*mp*

D.B.  
pizz.  
*mf*

99

Fl. *mf* flt. gliss (roll) normale

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S. *p sospeso*

El.

Vln. I

Vln. II

Vla.

Vc.

D.B. 3

102

Fl.

Ob.

Cl. *tongue slap* *gliss.*  
*sfz*

Bsn. *mf*

Hn.

Trp.

Trb. *straight mute*  
*p*

Perc. I *Low Sus. Cym.*  
*p*

Perc. II

Hp.

Pno.

A.S. *3*

El.

Vln. I

Vln. II

Vla.

Vc. *mf*

D.B.



106 7:8 7:8

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

106 7:8 7:8

106 \*

106

3 3



110

Fl. *mp* 7:8

Ob.

Cl. *mp*

Bsn. *mp* 3 *mf*

Hn. *pp* 7:8

Trp.

Trb. *p* straight mute gliss.

Perc. I Triangle l.v. *pp* Low Sus. Cym. arco *mp* l.v.

Perc. II

Hp.

Pno. *p* 5:4 5:4

A.S. T ↓ triangle spectra (additive) stretch partials (#2 --> x) T ↑

El. *cresc. poco a poco*

Vln. I *p* gliss. *sfp*

Vln. II *p* gliss. *sfp*

Vla. *p* gliss. *sfp*

Vc. arco *p* gliss. *sfp*

D.B. 3

Detailed description of the musical score: This page contains the musical score for measures 110 and 111. The score is arranged in a standard orchestral format with multiple staves.   
 - **Woodwinds:** Flute (Fl.) and Clarinet (Cl.) play a melodic line starting in measure 110, marked *mp*. The Flute part has a 7:8 ratio indicated above it. Bassoon (Bsn.) plays a triplet of eighth notes in measure 110, marked *mp*, which then transitions to a melodic line in measure 111, marked *mf*. Horns (Hn.) play a melodic line in measure 111, marked *pp*, with a 7:8 ratio indicated. Trumpets (Trp.) and Trombones (Trb.) are mostly silent, with the Trombone part marked *p* and including instructions for 'straight mute' and 'gliss.' in measure 111.   
 - **Percussion:** Percussion I (Perc. I) plays a triangle in measure 110, marked *pp*, and a low suspended cymbal in measure 111, marked *mp*. Percussion II (Perc. II) is silent.   
 - **Keyboard:** Harp (Hp.) is silent. Piano (Pno.) plays a melodic line in measure 110, marked *p*, with a 5:4 ratio indicated.   
 - **Strings:** Violins I (Vln. I) and Violins II (Vln. II) play a melodic line starting in measure 110, marked *p*, which glissandos into measure 111, marked *sfp*. Viola (Vla.) and Violoncello (Vc.) also play this line, marked *p* in measure 110 and *sfp* in measure 111. The Vc. part is marked 'arco'. Double Bass (D.B.) plays a melodic line in measure 110, marked *p*, with a triplet of eighth notes indicated.   
 - **Other:** An A.S. (A.S.) part has a 'triangle spectra (additive)' instruction in measure 110 and 'stretch partials (#2 --> x)' in measure 111. An 'El.' (Electric) part has a 'cresc. poco a poco' instruction across both measures.   
 - **Page:** The page number -44- is centered at the bottom.

112 7:8 7:8

Fl.

Ob.

Cl. *mf* 3

Bsn.

Hn. 112 7:8 7:8

Trp.

Trb. *sfz* *p*

Perc. I

Perc. II

Hp.

Pno.

A.S. 112 *mf* *stringendo* \*

El.

Vln. I 112 *mp*

Vln. II *mp*

Vla. *mp*

Vc. *mp*

D.B. 3

114 *mp* 7:8 **5** (3+2) **16** 4:5 **5** **4**

Fl.

Ob. *mf* 3

Cl. *tr* 3

Bsn.

Hn. *p* 7:8 **5** **16** 4:5 **5** **4**

Trp.

Trb. *mf* **5** **16** **5** **4**

Perc. I

Perc. II *mf* vibraphone

Hp.

Pno. *mf*

A.S. 114 3 **5** **16** **5** **4**

El.

Vln. I *mf* **5** **16** **5** **4**

Vln. II *mf*

Vla. *mf*

Vc. *mf*

D.B. 3 *mf*



118  $\frac{4}{4}$   $\frac{3}{4}$  5:6

Fl.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$

Ob.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *mf* *legato* *sfz*

Cl.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$

Bsn.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *mp*

Hn.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *mf* *legato* *sfz*

Trp.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *mf* *legato* *sfz*

Trb.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *mp* *l.v.*

Perc. I  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *mp* *l.v.*

Perc. II  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *mf* *legato* *l.v.*

Hp.

Pno.

A.S.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *mf* *T* *6*

El.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *HARM: +12*

Vln. I  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *sfz*

Vln. II  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *sfz*

Vla.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *sfz*

Vc.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *sfz*

D.B.  $\frac{4}{4}$   $\frac{3}{4}$   $\frac{5}{6}$  *sfz*

120 *5:6* **4/4**

Fl. *f*

Ob. *f*

Cl. *f*

Bsn. *f*

Hn. *mf*

Trp. *f*

Trb. *f*

Perc. I *mf* Gisp. l.v.

Perc. II *f* l.v.

Hp. *f* l.v. D F<sup>♯</sup> D A<sup>♯</sup>

Pno. *f*

A.S. *f* **3** *5:6* **3**

El. **T↓** pulse shimmer alto <-> glock **T↑** **T↓** stretch partials

HARM: 0

Vln. I *f* *sostenuto*

Vln. II *f* *sostenuto*

Vla. *f* *sostenuto*

Vc. *f*

D.B. *f* arco

122 *mf* *rit.* -----

Fl.

Ob.

Cl. *mf* 3 7:8 3

Bsn. *mp*

Hn. *p* 7:8

Trp. *p* 7:8

Trb.

Perc. I 122 Low Sus. Cym. *p* *mf*

Perc. II

Hp.

Pno.

A.S. 122 5:4 3 *mf* *mp*

El. --> harmonic T↑ T↓ T↑

Vln. I 122 *mf* gliss.

Vln. II

Vla.

Vc.

D.B. pizz. 3

A tempo

2/4

3

124

Fl. *mf* *f* 6

Ob. *mf* *f* 6

Cl. *mp* 7:8 3:4

Bsn. *mp* 3 3:4

Hn. *p* 7:8 3:4

Trp. *p* 7:8 3:4

Trb. (straight mute) *sfz* *sfz* 2/4 3

Perc. I

Perc. II *p* vibraphone

Hp.

Pno. *mf* 5

Reo. 5

A.S. *mf* *f* T↓ pulse shimmer alto <-> vibraphone T↑

El.

Vln. I *f* *mf* *f* *gliss.* *jeté*

Vln. II *f* *mf* *f* *gliss.* *jeté*

Vla. *f* *mf* *f* *gliss.* *jeté*

Vc. *f* *mf* *f* pizz. 3

D.B. *f* *mf* *f* *gliss.* *jeté* pizz. 3

126  $\frac{3}{8}$   $\frac{7}{16}$  (3+2+2)  $\frac{5}{16}$

Fl.  $f$

Ob.

Cl.  $mf$

Bsn.

Hn.  $\frac{7}{16}$   $\frac{5}{16}$

Trp.

Trb.

Perc. I  $mf$  T.T.s Low W.B. W.Blocks

Perc. II

Hp.

Pno.

A.S.  $mf$   $\frac{7}{16}$   $\frac{5}{16}$

El. HARM: +2

Vln. I  $mf$  pizz.

Vln. II  $mf$  pizz.

Vla.  $mf$  pizz.

Vc.  $mf$

D.B.  $mf$

5/16 (3+2)

4/4 Poco meno mosso (♩ = 70)

128

Fl.

Ob.

Cl. *tr* gradually slowing trill - - - - - to B clarinet

Bsn.

Hn. *sfz* + *cuivré* *f* *mf*

Trp.

Trb.

Perc. I *mf* W.Blocks *mf* Sus. Cym.s stick end scrape on bell

Perc. II vibraphone Lv. *f*

Hp.

Pno. *f sec*

A.S. *sospeso* T↓

El. HARM: 0 X↓ X↑ a. sax fragments

Vln. I *arco* *mf*

Vln. II *arco* *mf* gliss.

Vla. *arco* *mf* gliss.

Vc. *arco* *mf* gliss.

D.B. *arco* *mf*

*rubato*

131

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

gliss.

gliss.

gliss.

gliss.

sul G harmonic gliss.

a. sax fragments

T ↑

T ↓

T ↑

T ↓

5

3

5

5

*rubato*

**A tempo**

134

Fl. *mp*

Ob. *mp*

Cl. (B clarinet) *mp*

Bsn. *mp*

Hn. *mp*

Trp. harmon mute *mp* *sfz*

Trb.

Perc. I *p* High Sus. Cym. (on bell w/ nylon-tipped stick) *f*

Perc. II mallet Low T.T. *mp*  
vibraphone  
soft mallets

Hp.

Pno.

A.S. *mf* legato

El. (8<sup>va</sup>) noise component (noise)

Vln. I (bow behind bridge) *mp* pizz. *mf*

Vln. II (bow behind bridge) *mp* pizz. *mf*

Vla. pizz. *mf*

Vc. pizz. *mf*

D.B. pizz. *mf*

137

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*mp*

*mp*

*mp*

senza sordino

*sfz*

senza sordino

*mf* *sfz*

senza sordino

(High Sus. Cym.)

*p*

Low T.T.

*sfp*

D

*mp*

*mp*

*f*

*mp*

5

arco

arco

arco

140  $\frac{3}{4}$  7 16

Fl. *cresc. poco a poco* *tr<sup>h</sup>*

Ob. *cresc. poco a poco* *tr<sup>h</sup>*

Cl. *cresc. poco a poco* *tr<sup>h</sup>*

Bsn.

Hn.  $\frac{3}{4}$  7 16

Trp.  $\frac{3}{4}$  7 16

Trb.  $\frac{3}{4}$  7 16

Perc. I *mf sfz* *p* *cresc.* *choke* 7 16  
T.T.s  $\frac{3}{4}$

Perc. II

Hp. *cresc. poco a poco*  $\frac{3}{4}$  7 16

Pno. *cresc. poco a poco*  $\frac{3}{4}$  7 16

A.S.  $\frac{3}{4}$  *tr<sup>h</sup>* 7 16

El. *a. sax fragments* *HARM: +2*  $\frac{3}{4}$  7 16

Vln. I  $\frac{3}{4}$  7 16

Vln. II  $\frac{3}{4}$  7 16

Vla.  $\frac{3}{4}$  7 16

Vc.  $\frac{3}{4}$  7 16

D.B.  $\frac{3}{4}$  7 16

142  $\frac{7}{16}$  (2+2+3)  $\frac{9}{16}$  (3+2+2+2)  $\frac{2}{4}$

Fl. *sempre f*

Ob. *sempre f*

Cl. *sempre f*

Bsn. *f*

Hn. *sempre f*

Trp. *sempre f*

Trb. *sempre f*

Perc. I *f* Sus. Cym.s choke *simile*

Perc. II *sempre f*

Hp.  $F^{\#}$  *sempre f* son étouffés

Pno. *sempre f*

A.S. *f*

El. HARM: 0

Vln. I *sempre f*

Vln. II *sempre f*

Vla. *f* *sostenuto*

Vc. *f* *sostenuto* arco

D.B. *sempre f*

145  $\frac{2}{4}$   $\frac{8}{16}$  (3+2+3)  $\frac{4}{4}$

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

Bongos/Tom-toms *f*

Bongos

E

granular stretch "E"

arco

*tr<sup>b</sup>*

*tr<sup>b</sup>*

*tr<sup>b</sup>*

*tr<sup>b</sup>* "shake"

*sfz*

flt.

*sfz*

*sfz*

*sfz*

*sfz*

147 *rit.*  $\frac{4}{4}$

Fl. *ff* *mp*

Ob. *ff* *mp*

Cl. *ff* *mp*

Bsn. *mp*

Hn. *mp*

Trp. *ff* straight mute

Trb. wa-wa mute

Perc. I *f*

Perc. II *ff* *sfz*

Hp. *sfz*

Pno. *mp* 5:4 3:2

A.S. *Red.*

El.

Vln. I *pizz.* *mf*

Vln. II *pizz.* *mf*

Vla. *jeté* *f* *mp*

Vc. *mp*

D.B. *mp*

Meno mosso, con calma (♩ = 60)

149 gliss. 3 3

Fl.

Ob.

Cl. slow gliss. + 5 5

Bsn.

Hn. 149

Trp. mp

Trb. (wa-wa mute) gliss. sfz

Perc. I 149 Gong l.v. mp

Perc. II l.v. p

Hp.

Pno.

A.S. 149

El. T ↑

Vln. I 149 arco senza vib. pp

Vln. II arco sul pont. p

Vla.

Vc. (e)

D.B. sul C mp

152

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

senza sordino

senza sordino

High Sus. Cym.  
arco l.v.

*pp*

bowed cymbal stretch **T** ↓

*f* *p* 9:8

155

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*con vibrato*

*mp* *l.v.*

*pizz.* *mp*

Gisp. 3

3

3



162 cue 2

Fl.

Ob.

Cl.

Bsn.

Hn. 3 3 5

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S. 3 3  
sustain, breathing as necessary, until next cue

El. resonance →

Vln. I

Vln. II

Vla.

Vc.

D.B.

cue 3

166

Fl.

Ob.

Cl.

Bsn.

Hn.

3

5

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

3

sustain, breathing as necessary, until next cue

resonance →

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.



3 Alla misura (♩ = 55)

171

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*mf*

resonance

T ↓ gran. Bongos, m. 83

3/4 4/4

3/4 4/4

3/4 4/4

3/4 4/4

3/4 4/4

4 Più mosso, stringendo (♩ = 70)

174

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*ff*

*sub. p*

*f*

Bongos/Tom-toms

Sus. Cym.

*f*

*p*

*f*

key clicks (*ad. lib.*)

T ↑

~30 sec.

Calmato (♩ = 45)

176

Fl. *mp*

Ob.

Cl. *mp*

Bsn. *mp*

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S. *repeat with irregular rhythms, gradually slowing and fading...* (continue gestures...)  
vary key clicks ad. lib., repeating as many times as necessary

El. granular key clicks

Vln. I *mf* col legno battuto *mp* ord.

Vln. II *mf* col legno battuto *mp* ord.

Vla. *mf* col legno battuto

Vc. *mf* col legno battuto

D.B.

179

Fl. *gliss.* *legatissimo*

Ob.

Cl. *gliss.* *legatissimo*

Bsn.

Hn. *mp*

Trp.

Trb.

Perc. I

Perc. II *vibraphone* *p*

Hp. *E* *mp*

Pno. *p*

A.S. *mf*

El.

Vln. I

Vln. II

Vla. *mp* *ord.*

Vc. *mp* *ord.*

D.B.

181

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

straight mute

*p*

X↓

X↑ T↓

*infinite resonance*

183

Fl.

Ob. *slow gliss. +*

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*slow gliss. -*

*infinite resonance (m. 181)*

**T** ↑

**T** ↓





*cadenza*

191

Fl. *gliss.*

Ob.

Cl. *5*

Bsn.

Hn.

Trp.

Trb.

Perc. I *191* *Sus. Cym.*  
*p (no cresc.)*

Perc. II

Hp.

Pno.

A.S. *191* *throw resonance*  
*to noise* *sfp*

El.

Vln. I *191* *mf*

Vln. II

Vla.

Vc.

D.B.

194

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

\* see notes for fingering charts

*sfp* (A) *sfp* (B) *sfp* *sfp* (A) (B) → side trill "C"

*trill*



201

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*tr*

*sfz*

*accel.*

*allarg.*

*f*

*p*

*mf*

*lento assai, ma accel. poco a poco*

HARM: +2

HARM: 0

a. sax fragments disintegrate

204

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*cresc. poco a poco*

*leggiere*

*accel.*

a. sax gran: accel grain rate →

∅

206

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

(*accel.*)

206

*il più presto possibile*

A.S.

a. sax gran: accel grain rate

*f*

El.

*cresc. poco a poco*

Vln. I

Vln. II

Vla.

Vc.

D.B.



211

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

(controls algorithm range) ● ⊖ ○, *ritenuto*

211

A.S. *sfz* *f* *sub. pp* *leggiere* *lento assai, ma accel. poco a poco*

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

215

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

215

*accel.*

*brillante*

**T** ↓

*layers*

A.S.

El.

215

Vln. I

Vln. II

Vla.

Vc.

D.B.

218

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I

Perc. II

Hp.

Pno.

A.S.

El.

Vln. I

Vln. II

Vla.

Vc.

D.B.

*brillante*

*cresc.*

*ff*

*layers*

*5*

*density*

*più lento, trattenuto*

*mf*

*alto freeze*

*freeze level*

Detailed description of the musical score: The score is for page 218 and includes parts for Flute, Oboe, Clarinet, Bassoon, Horn, Trumpet, Trombone, Percussion I and II, Harp, Piano, Alto Saxophone (A.S.), Electric Lute (El.), Violin I and II, Viola, Violoncello (Vc.), and Double Bass (D.B.). The A.S. part begins at measure 218 with a *brillante* and *cresc.* marking, followed by a *ff* dynamic. The *layers* section for the El. part includes a five-measure phrase. The score contains several performance annotations: a *density* instruction with a solid black circle symbol, a *freeze level* instruction with an open circle symbol, a *più lento, trattenuto* instruction with a solid black circle symbol, and an *alto freeze* instruction with a 'T' in a box and a downward arrow. The *mf* dynamic is also present.

Alla misura, ansioso (♩ = 60)

221

Fl. *mf* *mf*

Ob. *mf*

Cl. *mf*

Bsn. *mf*

Hn.

Trp.

Trb.

Perc. I *p* *mf* W.Blocks

Perc. II

Hp. *f* 1.v. E

Pno.

A.S. *p* gliss. *mf* 6 6

El. *T* ↑ *autofade*

Vln. I *f* pizz.

Vln. II *f* pizz.

Vla. *f* pizz.

Vc. *f* pizz.

D.B.

*accel.*

224

Fl. *f*

Ob. *f*

Cl. *sfz* *f*

Bsn. *f*

Hn. *gliss.* *sfz* *mf*

Trp.

Trb. *mf*

Perc. I B.Dr. *p* *mf* *p* *mf*

Perc. II vibraphone *mf*

Hp. *mf* E G E *f*

Pno. *pluck strings* *lv.* *f* *mf*

A.S. *f* *Red* *Sub* *f*

El.

Vln. I *arco* *f*

Vln. II *arco* *f*

Vla. *arco* *f*

Vc. *sul pont.* *ord.* *pizz.* *arco* *f*

D.B. *sul pont.* *ord.* *gliss.* *wide and irregular vibrato* *sfz*



228  $\text{♩} = 80$

Fl.  $f > mf$  *tr.*

Ob.  $f > mf$  *tr.*

Cl.  $f > mf$

Bsn.

Hn.  $f$

Trp.  $f$  *sfz*

Trb.  $f$  *sfz*

Perc. I Triangle  $mp$

Perc. II to snare drum  $f$  S.D.R. *mf* Rimshot  $p$

Hp.  $f$  *sec*  $mf$  D

Pno.  $f$   $mf$  *tr.*  $ff$

A.S.  $f$  *ardito*

El.

Vln. I  $f$  *pizz.*

Vln. II  $f$  *pizz.*

Vla.  $f$  *pizz.*

Vc.  $f$  *pizz.*

D.B.  $f$  *pizz. gliss.* *arco* *gliss.*

4/4 3/4

Detailed description of the musical score: The score is for measures 228-230. It begins in 4/4 time with a tempo of quarter note = 80. At measure 229, the time signature changes to 3/4. The woodwind section (Flute, Oboe, Clarinet) plays a melodic line with a trill in measure 228, followed by a sustained note in measure 229. The brass section (Horn, Trumpet, Trombone) plays a rhythmic pattern of eighth notes. Percussion includes Triangle (mezzo-piano), Snare Drum (mezzo-forte rimshot), and Harp (forte secando). The piano part features a melodic line with a trill in measure 229 and a forte fortissimo chord in measure 230. The string section (Violin I, Violin II, Viola, Violoncello, Double Bass) plays a pizzicato accompaniment, with the Double Bass also performing glissandos.

230 2/4 4/4

Fl. *ff* *f*

Ob. *ff* *f*

Cl. *ff* *f*

Bsn. *sfz* *cresc. poco a poco*

Hn. *f* *fl.*

Trp. *sfp* *cresc.*

Trb. *f*

Perc. I *mp* High W.B.

Perc. II *f* to vibraphone *vibraphone medium mallets* *f* *l.v.*

Hp. *ff* *f* D E F

Pno. *6*

A.S. *6*

El.

Vln. I *6*

Vln. II

Vla. *6*

Vc. *6*

D.B. *pizz.*



rall. -----

rubato

234

Fl.

Ob.

Cl.

Bsn.

234

Hn.

Trp.

Trb.

234

Perc. I

Perc. II

Hp.

Pno.

234

A.S.

El.

234

Vln. I

Vln. II

Vla.

Vc.

D.B.

Alla misura, calmo (♩ = 50)

2/4

4/4

Fl. 237 pop keys with attack lip bend sfz p mf lip bend

Ob. 237

Cl. 1/2 hole gliss. p

Hn. 237 gliss. 3 mp p

Trp. 237

Trb. 237

Perc. I 237 Gong l.v. to marimba pp

Perc. II 237 Glsp. l.v. p to vibraphone

Hp. 237 C B mp 3 3

Pno. 237 mp

A.S. 237 mf 5 4:3

El. HARM: +2 autofade HARM: 0

Vln. I 237

Vln. II 237 molto espressivo mf

Vla. 237

Vc. 237 pizz. f

D.B. 237 mf



243

Fl.

Ob.

Cl.

Bsn.

Hn.

Trp.

Trb.

Perc. I *mp* l.v.

Perc. II

Hp.

Pno. *pp* 8<sup>th</sup>

A.S.

El. resonance T ↑ ---> to residual

Vln. I

Vln. II

Vla.

Vc.

D.B.