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Ru

By

Hwa-Chan Yu

A dissertation submitted in partial satisfaction of the
requirements for the degree of

Doctor of 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

Spring 2022

Abstract

Ru

by

Hwa-Chan Yu

Doctor of Philosophy in Music

University of California, Berkeley

Professor Ken Ueno, Chair

This piece borrows its title from an installation work by Kosovar artist Petrit Halilaj that depicts a landscape of migratory birds and their ephemeral nests. In Halilaj's work, the title RU represents Runik, the artist's birthplace and the site of numerous Neolithic artifacts and musical instruments, serving as material representations of a distant cultural memory. His work describes ideas of presence and absence that are important to me and my music. The presence of a sonic body, as it manifests in various permutational musical spaces and situations, briefly inscribes its activity and resonance within the environment, before fading away. This composition is an extension of my research on sonic embodiment that preserves and renews these sociocultural memories.

Ru

for ensemble

Jon Yu

(2017)

Written for and dedicated to David Milnes and the Eco Ensemble

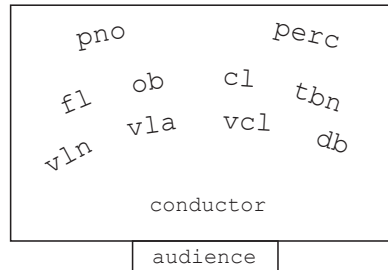
I would like to thank Ken Ueno, Franck Bedrossian, David Milnes, and the wonderful musicians of the Eco Ensemble for their endless support, mentorship, and insight during the composition of this piece.

I would also like to thank Edmund Campion, Cindy Cox, and Myra Melford for all their guidance and support during my time here at UC Berkeley.

Instrumentation

Bass flute (doubling piccolo)
Oboe
Bass clarinet (doubling clarinet in Bb)
Trombone (with cup mute, plunger mute, and harmon mute)
Percussion
Piano (with superballet mallet, shot glass, plectrum, cymbal sizzler)
Violin
Viola
Cello
Double bass

Stage setup



General

♭ ♮ ♯ ## three-quarter flat; quarter flat; quarter sharp; three-quarter sharp

♭ ♮ ♯ ♭ ♮ ♯ arrows indicate slightly altered pitches; less than a quarter tone



solid arrow and dashed slur indicate a gradual transition from one articulation to another.

**No vibrato unless otherwise indicated

**All articulations carry to the next note(s) unless cancelled by another articulation (courtesy indications are given throughout).

duration: ca. 14 minutes

contact:
hwachanyu@gmail.com
jonyumusic.com

Bass flute (doubling piccolo):



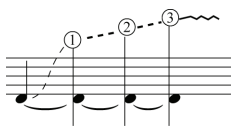
diamond notehead indicates air sound with as little pitch as possible. rhythmic value is always quarter note or faster.



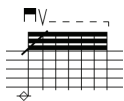
'x' notehead indicates a vocalization into the flute at the indicated fingering. vocalization should be unvoiced. phonemes appear in brackets (i.e. [t], [k], [p]). vocalized "words" appear in bold (i.e. **kre**, **ta**, **le**). the exact pronunciations are up to the performer.



triangle notehead indicates tongue ram. sounds approximately a 7th below.



circled numbers indicate overblowing at the specified fingering. the number refers to the relative range of the overblown spectrum (1=low, 2=mid, 3=high). the dashed lines indicate a transition between the different ranges. the irregular lines indicate a distorted fluctuation within the given range.



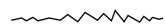
indicates fast succession of exhale and inhale with the specified fingering.



covered and uncovered embouchure hole



[piccolo only] square notehead indicates plugging the barrel with pinky and covering the embouchure hole. the resulting sound should be static/white noise.




irregular vibrato.





a sharp and audible inhale, like a gasp.

Oboe:


□ V exhale and inhale


 air sound. performed without mouthpiece.


 square noteheads indicate "trumpet" embouchure without mouthpiece. the effect should be a noisy spectrum. this technique is often transitioned in and out of via air sounds. black square notehead indicates fingering.

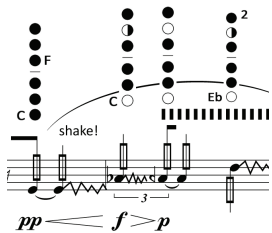
 white triangle indicates "underblowing." the effect should be a hollow and fragile timbre.

 black triangle indicates tongue ram. performed without mouthpiece.

 perforated line indicates a chattering distortion produced by loosening the embouchure.

[k] vocalized phonemes. unvoiced.


[k] vocalization with air sound.




The image shows a musical score for Oboe with various fingerings and dynamics. Fingerings are indicated by black dots above notes: C (finger 1), F (finger 2), Eb (finger 2), and Eb (finger 2). Dynamics include *pp*, *f*, and *p*. A "shake!" instruction is present above a note. A triplet of notes is marked with a "3" below it. A wavy line indicates a chattering distortion.

there is an extended passage towards the end of of the piece with a series of multiphonic fingerings. the irregular lines indicate a distortion of these multiphonics by shaking the instrument to fluctuate the reed positions. the result should be wildly distorted and variable in pitch.

Bass clarinet (doubling Bb clarinet):



diamond notehead indicates air sound with as little pitch as possible. rhythmic value is always quarter note or faster.



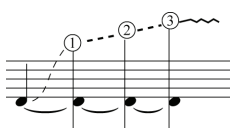
vocalization at the indicated fingering.



vocalization at the indicated fingering with air sound.



triangle notehead indicates slap tongue, as dry and pitchless as possible.




circled numbers indicate 'split tones' at the specified fingering. the number refers to the relative range of the 'split tone' spectrum (1=low, 2=mid, 3=high). the dashed lines indicate a transition between the different ranges. the irregular lines indicate a distorted fluctuation within the given range.





find a stable position for the embouchure and then gently shake the clarinet vertically so that the stability of the embouchure's position is disturbed. the effect is a fragile and irregular vibrato.

in mm. 101-105, the clarinetist speaks into the bass clarinet without mouthpiece while changing the fingerings to filter the voice. the vocalization should be mostly unvoiced, but voiced phonemes can be included ad lib.


Trombone (with cup mute, plunger mute, and harmon mute):


 exhale and inhale


 air sounds.


 square notehead indicates a very tight lip pressure that produces high overtones in the given positions. the irregular lines graphically indicate a fluctuation within the spectrum. the fundamentals should be largely unheard.


 quickly glissando microtonally with slap tongue.

 white circle noteheads indicate sung pitches.

[a]
 phonemes with diamond notehead indicate vocalization with air sounds. unvoiced.

[u]
 phonemes with singing indicate filtering the sound with the given vowel shape.

 wildly irregular glissando.

V
 a sharp inhale, like a gasp.

Percussion:

- 1x large timpano (~32")
- 1x 5 octave marimba
- 1x tantam
- 1x large concert bass drum
- 1x nipple gong pitched in Bb2 (or close)
- 1x nipple gong pitched in Db3 (or close)
- 1x superball mallet
- 1x bow
- 1x 12" plastic ruler (composer can provide)
- 2x small slabs of rock (composer can provide)

**if the second high gong is unavailable, its part can be alternatively performed (with superball) on the side of the low gong, producing a higher overtone of the low gong's fundamental.

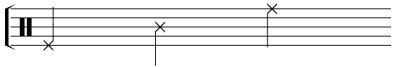
**timpano pedal always remains in the lowest position

**marimba is only performed with bass drum mallets



the uncircled 'x' noteheads represent black noteheads (e.g. quarter, eighth, sixteenth notes). the circled 'x' noteheads represent white noteheads (i.e. half and whole notes).

the rocks are performed in contact with the timpano head, with the sounds lightly resonating through the timpano.



bottom staff line: one slab of rock is placed flat on the timpano. the percussionist holds the other slab of rock with one hand and scrape the placed rock in a circular motion, with a large contact surface, resulting in a lower sound.



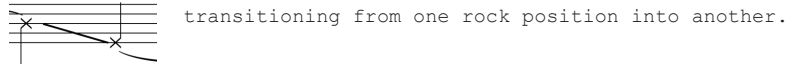
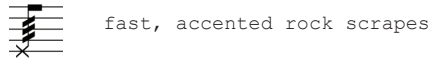
middle staff line: scrape the placed rock with less contact surface, resulting in a higher sound.



top staff line: the percussionist holds both slabs of rock (one in each hand), and touch the middle of the timpano with one point of one rock, while scraping it in a steady circular motion with the other rock. the scraping sound should resonate through the timpano.



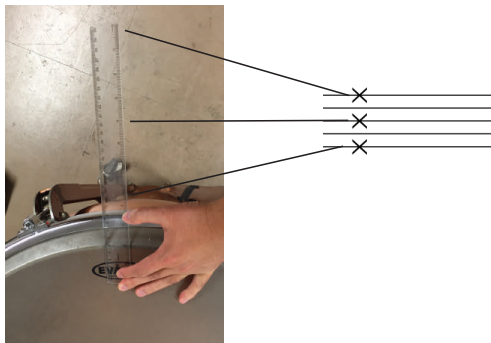
Percussion (cont'd):




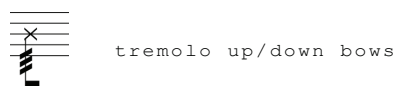
ruler + bow: place one part of the ruler flat on the timpano head and bow the other part. the resulting sound should fluctuate from noise to pitch depending on the bow pressure (indicated by dynamics). the following graphics represent the amount of ruler to be placed on the timpano head.





ruler + bow: the five-line staff indicates the bowing positions of the ruler. the top line is furthest away from the timpano; the middle line is the middle point; the bottom line is closest to the timpano. this range is dynamic and relative to the length of the portion of the ruler that is not touching the timpano.



 down and up bows
(down bow = from tip of bow to frog)



 bass drum: place one mallet on the drumhead and strike it with the second mallet.



Piano:

the piano part requires:

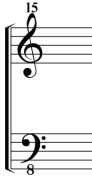
1x superball mallet

1x shot glass

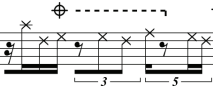
1x plectrum or plastic card

1x cymbal sizzler (composer can provide)

N.B. the top register of the piano (A6 to B7) is prepared by applying non-stick tape on top of the strings inside the piano. the resulting sound should be muted.



for the majority of the piece, the top staff is 15ma, and the lower staff is 8vb.



the 'x' noteheads indicate prepared notes on the upper register. the \otimes symbol indicates further muting of the strings by pushing down on the strings with the palm of your hand while playing the notes on the keys, this should completely dampen the strings and produce pitchless thuds when played. the dashed bracket indicates the notes that should be dampened in this way. these passages (unless otherwise indicated) should be performed very quietly, with the hammers barely striking the strings.



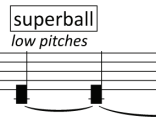
(frame) strike the metal frame within the piano either with a hard mallet or with the shot glass. the pianist should find the frames that are most resonant. the lower notehead indicates a frame with a lower resonance, the upper notehead indicates a frame with a higher resonance.



square noteheads indicate actions performed on the strings inside the piano within the range of pitches (strings do not have to be perfectly exact).



strike the strings with the palm of your hand and allow them to resonate.



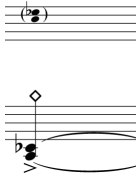
rub the superball mallet along the indicated range of strings (strings do not have to be exact). when 'low pitches' is indicated, hold the mallet with a looser grip and allow the superball to just slightly "bounce" on the strings and produce lower pitches. when 'high pitches' is indicated, hold the mallet with a tighter grip.



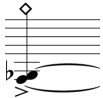
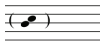
dampen the indicated strings with your fingers at the very base of the strings (below the dampers). the resulting sound should be a low resonant thud. pitches should still be audible.

Piano (cont'd):

m.28



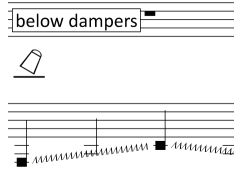
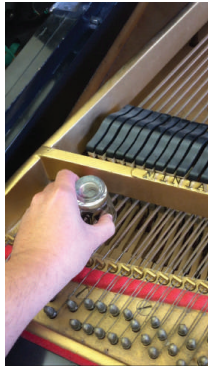
diamond symbol indicates playing the notes while placing fingers on the harmonic nodes of the strings. the sounding pitches are notated on the top staff in parentheses (although the sounding pitches of the harmonics are indicated, the resulting sound should be a complex sonority). m28 has the only instance where the nodes are past the dampers. the 8th harmonic (3 8ves) is found here (pictured).



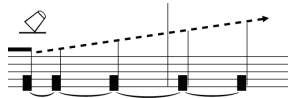
the other harmonics in the piece are performed below the dampers (pictured). the 10th (3 8ves +maj 3rd -14¢) and 9th (3 8ves +maj 2nd +4¢) harmonics are found here. the resulting sound should be a complex sonority.



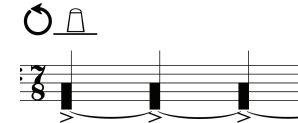
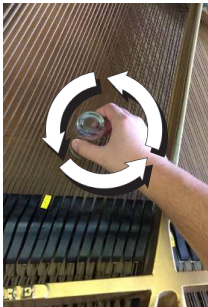
Piano (cont'd):



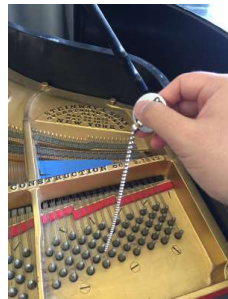
hold the shot glass against the strings at an angle. scrape to your right in a zigzag motion. the glass should grind along the winding of the strings, producing a lowly pitched "guiro" effect.



hold the shot glass at an angle and scrape up the indicated strings. the pitches should glissando upwards similar to a glass slide on a gutiar. the noisy friction along the winding should still be heard.



hold the glass downwards flat on the indicated strings and scrape in a circular motion.



square notehead = dangle the cymbal sizzler over the part of the string between the metal pins and red felt.





'x' notehead = dangle the cymbal sizzler over the metal pins.

Strings:

MSP = molto sul ponticello
SP = sul ponticello
ORD = ordinario
ST = sul tasto
MST = molto sul tasto

"slow" = slow bow speed

"norm" = normal bow speed

 light bow pressure
 normal bow pressure
 slightly heavier than normal bow pressure
 heavy bow pressure; high noise content

crine = bow with hair

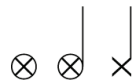
legno = bow with wood

c.l.t. = col legno tratto

c.l.b. = col legno battuto



triangle noteheads indicate bowing, plucking behind the bridge. the placement of the noteheads on the staff indicates designated string(s). black and white triangle noteheads are used to reflect rhythmic values. col legno battuto (c.l.b.) and pizz. on strings behind the bridge should generate a resonance from the tail-piece throughout the instrument's body.



'x' noteheads indicate dampened string(s) at the designated place(s) on the string(s). use two or more fingers if possible to ensure no harmonics are sounded; the effect should be mostly pitchless and rich in noise content. when coupled with slow bowing, some subtones should appear. circled 'x' noteheads are used to reflect whole and half notes.

PREPARATIONS:





The III (G) strings of the **VIOLA and CELLO** are prepared with a piece of Scotch mounting putty (or something similar) at the fourth harmonic node (closest to the bridge). The sound should be an inharmonic spectrum with high noise content. The resulting pitch should be approximately a half-step lower than written. The score and parts are notated in the fingered positions, not sounding.

If the patafix comes loose during the more active passages of the piece, a piece of Scotch tape can be applied over the putty to secure it in place.

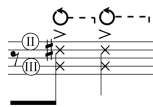


Strings (cont'd):


directional bowings should be a heavy "smearing" of the sound, high in noise content and often producing subtones. when a series of directional bowings are indicated, they should be coordinated such that the sounds connect with one another with little to no break in between, as if they are being smeared together.


-  move the bow down the string from pont. to tasto without horizontal bow movement
-  move the bow down the string from tasto to pont. without horizontal bow movement
-  move the bow down the string from pont. to tasto with horizontal movement
-  bow in a circular motion

N.B. the speed of the directional bowings are determined by the rhythmic values to which they are attached. In the following example, the first circular bow is completed (i.e. a full circle) in the time of an eighth note, and the second circular bow is completed in the time of a quarter note.

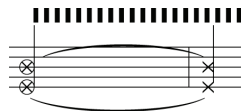


gliss. with wide and exaggerated vibrato

 dampen the string(s)

 ricochet

 irregular vibrato



[violin only]: push the bow hair against the strings so that the wood of the bow is also pressed against the hair. roll and twist the bow like a crank so that the bow hair crackles against the strings and the wood of the bow. like dry twigs snapping. the exact rhythms of these articulations are ad lib., as long as they occur within the given time value.

IV string of the double bass is tuned to C.

Ru

for ensemble

Jon Yu

16" $\text{♩} = 70$

Piccolo *sfp* *pp* *p* *pp* *sfp* *pp* *airy/diffused*

Oboe *reed out* *p* *pp* *p* *pp* *p* *pp*

Clarinet in B \flat *airy/fragile* *shake* *ppp* *shake* *pp* *ppp*

Trombone *cup mute* *pp* *mp* *pp* *p*

Percussion *rocks on timp.* *sfp* *mp* *pp* *mp* *sub. pp* *mp* *pp* *sfp* *pp* *mp*

Piano *(15^{ma})* *barely audible* *mp* *ppp sempre* *mp* *ppp*

Violin *(behind bridge)* *sempre* *pp* *p* *pp* *p* *mst slow bow*

Viola *(behind bridge)* *sempre* *pp* *p* *pp* *p* *vib. with bow* *st slow bow*

Cello *st slow bow* *hollow, with a faint trace of pitch* *p* *pp* *p* *pp* *p* *(slow)*

Double Bass *sp slow bow* *pp* *p* *pp* *p* *sp (slow)*

*maintaining same trill interval

6 U → ∞

Picc. *p* *pp* *p* *D* *D#*

Ob. *p* *pp* *p* *pp* *p* *mp* *pp*

Cl. B. *airy* *p* *airy/fragile* *shake* *p*

Tbn. *poco vib.* *pp* *n.v.* *p* *pp* *p*

Perc. one rock vertical on timp. *p* *mp* *pp* *mp* *p* *sfz* *mp*

Pno. *ppp* *ppp* *p* *pp*

Vln. *p* *mp* *p* *pp* *f*

Vla. *p* *mp* *p* *pp* *f*

Vc. *norm bow speed* *pp* *mp* *p* *mp* *p* *f*

D.B. *mst* *(slow)* *p* *mp* *f* *p* *mp*

ritardando $\text{♩} = 54$ $\text{♩} = 70$

11

Picc. (plugged) *p*

Ob. *mp* *p*

Cl. B. *p*

Tbn. *pp* [u] [e]

Perc. rocks on timp. *p*

Pno. *ppp* (frame) *sfz* (frame) *mp* *p*

Vln. *p* *pp* *p* *pp* *mp* *pp* *p*

Vla. *mp* *pp* *p* *pp*

Vc. *p* *pp* *p*

D.B. *p*

8^{va} *slow*

♩ = 60

The musical score is arranged in a standard orchestral format with the following parts and markings:

- Picc.**: Whistle tone, *p*
- Ob.**: *pp*, *p*, *pp*, *mf*, *p*
- Cl. B.**: *pp*, airy/fragile, shake, *p*, bass clarinet
- Tbn.**: *pp*, *p*
- Perc.**: bass drum mallets, bass drum
- Pno.**: below dampers, (past dampers) superball low pitches, *p*
- Vln.**: *pp*, *p*, *pp*, *f*
- Vla.**: *p*, *pp*, *f*
- Vc.**: *pp*, *f*
- D.B.**: *pp*, *p*, *mp*, ord, msp, sp

accelerando $\text{♩} = 70$ $\text{♩} = 54$

Picc. *mp* *sfz* *mp* (plugged)

Ob. *mp* [k] [t] [f]

B. Cl. *sfz* bass clarinet

Tbn. *pp* *p* *sfz* *pp*

Perc. *ppp* *mf* rocks on timp.

Pno. *p* *sfz* past dampers

Vln. *pp* *sfz* *sfz* *st* *pizz.*

Vla. *pp* *pp* *sfz* *sfz* *st* *pizz.*

Vc. *pp* *pp* *sfz* *sfz* *st* *legno*

D.B. *pp* *pp* *p* *pp* *pp* (no decresc.) *sfz* *st* *mst poco vib.* *st* *RH*

29 ----- *accel.* ----- ♩ = 62

Picc. *mp* (no decresc.)

Ob. reed in

B. Cl. *pp* *pp* (no decresc.) *f* *p* *pp*

Tbn. *p* *mp*

Perc. bass drum superbass *mf* *p* *mf* *pp* *p*

Pno. below dampers *f* superbass high pitches

Vln. *p* *ff* *p*

Vla. *ff*

Vc. (no decresc.) *f* *p*

D.B. *ff* *f*

ritardando ♩ = 54 *accelerando* ♩ = 70

Picc. 34

Ob. 34

B. Cl. 34
soft
fundamental
(1)
p

Tbn. 34
harmon mute
(stem out)

Perc. 34
l.v.

Pno. 34
l.v.
p
(~~200~~)

Vln. 34
f > *p* *pp* *f* > *p*

Vla. 34
p *mp*

Vc. 34
mp

D.B. 34
(slow) *p* *pp* *mp* *pp* *mp* *st* *st* *sp* *st* *sp* *multiphonic* (slow) *p* *f* *ff*

39 $\text{♩} = 70$ *airly* *pp* *ff* *accel.* $\text{♩} = 92$

Picc. *ff* *pp* *ff*

Ob. *ff* *pp* *ff*

B. Cl. *ff* *p* *pp* *p* *ff*

Tbn. *ff* *p* *pp* *p* *pp* *ff*

Perc. *ff* *f*

Pno. *ff* *pp* *p* *pp* *ffp* *f* *p* *f* *p*

Vln. *ff* *fpp* *ff* *mf* *ff*

Vla. *ff* *fpp* *p* *pp* *ff* *mf* *ff*

Vc. *ff* *pp* *p* *pp* *p* *ff* *mf* *ff*

D.B. *ff* *p* *ff* *p* *ff* *mf* *ff*

harmon mute (stem out)

bass drum mallets

superball

l.v.

temp

superball

below dampers

below dampers

pizz.

arco

norm bow speed

15^{ma}

sp

st

slow

mst

sp

ritardando ♩ = 80

44

Picc. *ff* *mp* bass flute

Ob. *ff*

B. Cl. *ff* *mp*

Tbn. *ff*

Perc. 44 *f* *mf* *mp* vib. with pressure ruler + bow on timp slow bow

Pno. 44 *ff*

Vln. 44 *mf* *ff* *mf* *fff* *st* *slow* *pp* *mp*

Vla. *mf* *ff* *mf* *fff* *st* *slow* *pp* *mp*

Vc. *mf* *ff* *fff* *st* *slow* *mp*

D.B. *mf* *fff* *mp*

49

B. Fl. *bass flute* U → *fp* *mp* *pp* *p* *p*

Ob. *fp* *pp* *p* *bisb* *fp* *mp* *p*

B. Cl. *bisb* *f* *mp* *fp*

49

Tbn. *fp* *pp* *p* *pp*

49

Perc. *p* *fp* *fp* *mp*

49

Pno. *below dampers* *pp*

49

Vln. *ord* *fp* *mp* *fp* *mp* *p*

Vla. *ord* *norm bow speed* *fp* *pp* *st* *mp*

Vc. *ord* *norm bow speed* *st* *fp* *mp*

D.B. *ord* *fp* *mp*

54

B. Fl. *p* *ff* *p*

Ob. reed out *mp* *p*

B. Cl. *mp* *p* *mp* *f* *p*

Tbn. 54 *p* *pp* *p* *ff* *mp* *p*

Perc. 54 bass drum mallet marimba I.V. *sfz*

Pno. 54 *p* *pp* *p*

Vln. 54 *slow* *mp*

Vla. *slow* *pp* *mp* *norm bow speed* *ff* *mp*

Vc. *st* *slow* *mp* *norm bow speed* *st* *ff* *mp* *p*

D.B. *sp* *st* *slow* *p* *mp* *mp*

65 pek ti kre [kh] [w] [t] pe---k ti le puk te [h] ta [s] [kh] U S [kh] te pa

B. Fl. *f* *sfp* *sfz* *p* *mf* *p*

Ob. *f* *p* *f* *p*

B. Cl. *mp* *p* *mp* *pp* *molto vib.* *bisb.* *pp*

Tbn. *mp* *p* *mp* *pp* *p*

Perc. *f* *p* *f* *p*

Pno. *mp* *p* *pp* *mp* *p* *pp*

Vln. *mp* *f* *mp* *pp* *legno*

Vla. *mp* *f* *mp* *pp* *legno*

Vc. *mp* *pizz.* *(pizz.)* *c.l.b.* *pizz.* *mp* *pp* *crine* *arco* *legno*

D.B. *mp* *c.l.b.* *pizz.* *crine* *arco* *slow* *pp* *legno* *norm bow speed*

75 $\text{♩} = 72$ $\text{♩} = 66$

B. Fl. *pp*

Ob. *mp* reed in

B. Cl. *pp*

Tbn. 75

Perc. 75 marimba *bass drum mallets l.v. ---> *ppp*


Pno. 75 15 superball low pitches *pp*

Vln. 75 crine *fp*

Vla. crine st slow *mp* *p* *pp*

Vc. st slow *p*

D.B. mst slow *pp*

ritardando  = 52

81

B. Fl.

Ob.

B. Cl. remove mouthpiece

81

Tbn.

81

Perc.

81

Pno. l.v. hold ped. until sound has completely decayed

81

Vln.

Vla.

Vc.

81

D.B. mst slow

87 te [k] pa-le sa kre [t]

B. Fl. *p*

Ob. *pp* *ppp* *ppp* *pp* *underblown*

B. Cl.

Tbn. 87

Perc. 87

Pno. 87

Vln. 87 *crank* *p sempre*

Vla. *fade with oboe*

Vc. *fade with oboe*

D.B. *pp* *mp* *pp*

♩ = 62

93

B. Fl.

Ob.

B. Cl.

Tbn.

Perc.

Pno.

Vln.

Vla.

Vc.

D.B.

pp

pp

p

pp

ppp

bass drum bass drum mallets

ppp

st (slow)

mp

p

mp

pp

st

slow

mp

p

mp

pp

st III only

slow

p

plunger +

ppp

♩ = 70

100

B. Fl.

Ob.

B. Cl.

mp

speaking into clarinet without mouthpiece.
mostly unvoiced, interject with voiced phonemes ad lib.

[o] [ch] [s][n][d] [i] [a] [f] [b] [t][d][h] [s] [k][u] [o] [v] [g] [b][t][s][d][m] [t] [n] [k] [h] [d] [i] [f] [t] [s][t]

100

Tbn.

100

Perc.

rocks on timp.

one rock vertical on timp.

mp

100

Pno.

15

6

100

Vln.

Vla.

Vc.

p

D.B.

♩ = 54

106

B. Fl.

Ob.

B. Cl.

replace mouthpiece

106

Tbn.

106

Perc.

106

Pno.

106

Vln.

Vla.

Vc.

D.B.

pizz. arco

st

norm bow speed

p

mp

pp

mst slow

111

B. Fl. *ppp* *pp* *mp* *ppp* U → S U → S vib.

Ob. *pp* *mp*

B. Cl. *ppp* *pp* *ppp* *mp* blend with marimba *p* *ppp*

111 plunger + *ppp* *pp* *mp* $\frac{4}{4}$ $\frac{3}{4}$ $\frac{2}{4}$

*bass drum mallets
111 marimba l.v. sempre (unless Φ) *ppp* *pp* *f* *sfz* *ppp* *mp* *ppp*

111 15
Pno. superball low pitches l.v. *pp* *mp* *sfz* hold ped. until sound has completely decayed

111 st slow ord norm *pp* *mp*

Vln. () slow norm slow *pp* *ppp* *mp* *ppp*

Vla. () slow norm slow *pp* *ppp* *mp* *ppp*

Vc. () slow ord norm st slow *pp* *mp* *ppp*

D.B. mst slow *pp* *ppp* *mp*

115

B. Fl.

Ob.

B. Cl. *1/2 pitch - -*

Tbn. *pp* *pp* (voice) *pp*

Perc. *ppp sfz ppp mp pp ppp mp pp mp mp*

115

Pno.

Vln.

Vla. *st* *slow* *mp*

Vc. *st* *slow* *mp*

D.B.

119

B. Fl. *pp* *ppp*

Ob.

B. Cl. *pp* *ppp*

Tbn. 119

Perc. 119 *ppp* *mp ppp* *ppp < mf > ppp* *p* *pp* *ppp*

Pno. 119 *pp* *p* hold ped. until sound has completely decayed

Vln. 119 *ppp* mst slow

Vla. *pp* *ppp* st slow

Vc. *pp* *ppp* st norm

D.B. *pp* *ppp* mst slow

123

B. Fl.

Ob.

B. Cl.

voice like

pp

123

Tbn.

123

Perc.

voice like

pp

123

Pno.

15

123

Vln.

Vla.

Vc.

D.B.

Detailed description: This page of a musical score contains ten staves for different instruments. The top staff is for B. Fl. (Bass Flute), followed by Ob. (Oboe), B. Cl. (Bass Clarinet), Tbn. (Tuba), Perc. (Percussion), Pno. (Piano), Vln. (Violin), Vla. (Viola), Vc. (Violoncello), and D.B. (Double Bass). The score is in 4/4 time and covers measures 123 and 124. The B. Cl. and Perc. parts feature a melodic line starting in measure 123, marked 'voice like' and 'pp' (pianissimo), with a triplet of eighth notes in measure 124. The Pno. part has a '15' marking above the staff in measure 123. The Vln. part has a fermata in measure 123. The Vla. part has a long, sustained note with a fermata across measures 123 and 124. The Vc. and D.B. parts have a long, sustained note in measure 123. The B. Fl., Ob., and Tbn. parts are mostly silent, with some rests in measure 123.

127

B. Fl. *pp* *u* *→* *s* kre te

Ob.

B. Cl. *pp* *ppp*

Tbn. 127

Perc. 127 *pp* *ppp*

Pno. 127

Vln. 127

Vla. 127

Vc.

D.B. *st* *very slow bow* *pp*

Detailed description: This page of a musical score covers measures 127 to 130. The instruments are arranged vertically: B. Fl., Ob., B. Cl., Tbn., Perc., Pno., Vln., Vla., Vc., and D.B. The B. Fl. part has a melodic line starting at measure 127 with a *pp* dynamic, a slur over measures 127-128, and a breath mark *u* followed by a slur *→* *s* over measures 129-130. The B. Cl. part has a melodic line starting at measure 127 with a *pp* dynamic, a slur over measures 127-128, and a *ppp* dynamic with a slur over measures 129-130. The Perc. part has a complex rhythmic pattern starting at measure 127 with a *pp* dynamic, a slur over measures 127-128, and a *ppp* dynamic with a slur over measures 129-130. The D.B. part has a melodic line starting at measure 129 with a *st* dynamic, a *very slow bow* instruction, and a *pp* dynamic with a slur over measures 129-130. The other instruments (Ob., Tbn., Pno., Vln., Vla., Vc.) are silent throughout these measures.

♩ = 66

131

B. Fl. *ppp* trembling [s] [h]

Ob. *p* *fpp* *ppp* *p* *pp*

B. Cl.

131

Tbn.

131

Perc. bass drum *pp*

131

Pno. *pppp* (15^{mes}) dangle sizzler over strings. hardly audible, like a music box

131

Vln. *pp* *st* [N] *norm* *slow*

Vla. *ppp* *st* *slow*

Vc. *pp* *p* *st* [N]

D.B. *p* *mst* [N] *slow*

136

B. Fl.

Ob.

B. Cl.

Tbn.

Perc.

Pno.

Vln.

Vla.

Vc.

D.B.

bish

pp

shakel

pp

f > p

136 |move to pins|

15

mst
slow

p

p

sp
norm

p

f > p

mp

mst

141

B. Fl.

Ob.

B. Cl.

Tbn.

Perc.

Pno.

Vln.

Vla.

Vc.

D.B.

f *f* *pp* *pp* *p* *pp* *f* *p* *mf* *p* *mp* *mp* *mp* *p*

pedal - - - - -

plunger

tam tam beater

bass drum

bass drum mallets

below dampers

superball

low pitches

l.v.

st slow

ord very slow bow

fragile

breathe as needed

Detailed description of the musical score: The score is for measures 141-144. It includes parts for B. Fl., Ob., B. Cl., Tbn., Perc., Pno., Vln., Vla., Vc., and D.B. The percussion part includes tam tam beater, bass drum, and bass drum mallets. The piano part includes 'below dampers' and 'superball' instructions. The strings (Vln., Vla., Vc.) have 'st slow' markings. The double bass part has an 'ord very slow bow' instruction. Dynamics range from *f* to *pp*. There are also performance markings like 'pedal', 'plunger', 'fragile', and 'breathe as needed'.

accelerando ♩ = 96

145

B. Fl. *p pp p ff* [u] [s] [p] [t] [k]

Ob. *ff* *molto vib.*

B. Cl. *ppp ff* *molto vib.*

Tbn. *ppp pp pp pp ff* [u] [e]

Perc. *(no cresc.)*

Pno. *pp* *l.v.* *ff*
superball *p*

Vln. *ppp pp ff*

Vla. *ff*

Vc. *ff*

D.B. *pp* *st* *msp* *ff*

Detailed description: This page of a musical score covers measures 145 to 150. It features ten staves: B. Fl., Ob., B. Cl., Tbn., Perc., Pno., Vln., Vla., Vc., and D.B. The B. Fl. staff includes phonetic annotations [u], [s], [p], [t], and [k] above notes. The Pno. staff includes performance instructions 'below dampers' and 'past dampers' with diamond and circle symbols, and 'superball' with a 'p' dynamic. The Vln., Vla., and Vc. staves have 'N' markings above notes. The D.B. staff has 'st' and 'msp' markings. Dynamics range from *ppp* to *ff*. The tempo is marked *accelerando* with a metronome marking of ♩ = 96.

(♩ = 96)

150

B. Fl. *sfpp* *p* *ff* *ff* *p* *ff*

Ob. *sfpp* *ffp*

B. Cl. *p* *sfpp* *ppp* *ff* *growl*

Tbn. 150 *pp* *p* *sfpp* *p* *pp* *ff* *pp* *p* *pp* *p*

bass drum

Perc. 150 *ff* *p* *ff* *mp* *ff* *ruler + bow on timp*

Pno. 150 *sfz* *pp* *ff* *pp* *p* *pp* *with sizzler placed on strings* *past dampers* *below dampers*

Vln. 150 *p* *ff* *sub.* *f* *ff* *sfpp* *ffp* *ord* *sp*

Vla. *sfz* *p* *ff* *ff* *p* *f* *p* *ffp* *mf* *ord* *st*

Vc. *sfz* *p* *ff* *sfp* *pp* *ff* *arco* *sp*

D.B. *sfz* *p* *ff* *sfp* *sfp* *pp* *ff* *arco* *sp* *multiphonic*

156 [s]-----
B. Fl. *pp* *fff* *f* *fff*
growl-----
Ob. *pp* *p* *pp* *p* *fff* *p* *fff* *sub* *p*
shake!
B. Cl. *pp* *p* *pp* *fff* *f* *fff*
growl-----
slap
Tbn. 156 *pp* *mp* *pp* *pp* *mp* *p* *p* *fff* *f* *sub* *p* *fff* *sub* *p*
increase lip pressure and sweep up
Perc. 156
Pno. 156 *f*
superball high pitches
make sure sizzler is not touching the bottom two low strings (A0 and Bb0)
no pedal
Vln. 156 *mp* *p* *p* *fff* *sp*
Vla. *p* *fff*
slow
Vc. *p* *fff* *sp* *msp*
slow
D.B. *pp* *fff* *sp*

162

B. Fl. *mf* *fff*

Ob. *f* *fff* *f* *ff* *mp* *ff* *p* *ff* *p* *ff* *p* *f*

B. Cl. *f* *ff* *f* *fff* *ff* *p* *ff* *p* *ff* *p* *ff* *sub* *p*

Tbn. *f* *p* *f* *fff*

Perc. 162 *bass drum mallets
marimba *fff* i.v.

Pno. 162 *fff*

Vln. 162 *f* *fff*

Vla. *f* *fff*

Vc. *f* *fff*

D.B. *f* *fff*

173 *unstable*
B. Fl. *mp* *pp*

Ob. *pp* *pp*

B. Cl. *bisb.* *pp* *pp*

173 *pp* *p* *pp* *p* *pp* *p* *pp* *mp* *pp*
Tbn.

173 *mp* *p* *pp* *p* *pp* *p* *ppp* *mp*
Perc. *marimba* *lv.* *bass drum mallet* *bass drum superball*

173 *remove sizzler* *superball low pitches* *mp*
Pno.

173 *slow* *p* *mp* *p* *mp* *p*
Vln.

Vla. *p* *mp* *p* *mp* *p*

Vc. *p* *mp* *p* *mp* *p* *mp* *p* *mp* *p*

D.B. *p* *mp* *p* *mp* *p*

178

B. Fl. *mp*

Ob. *mp*

B. Cl. *mp*

Tbn. 178

Perc. 178
marimba
bass drum mallet
chromatic
f *p* *pp* *mp* *p* *mp* *pp*

Pno. 178
superball
low pitches
p

Vln. 178
ff *p* *mp* *p* *f* *mp*
vib. with bow
5

Vla. *ff* *p* *mp* *p* *f* *mp*
vib. with bow
3

Vc. *ff* *p* *mp* *p* *mp* *p* *f* *mp*
st

D.B. *ff* *p* *msp* *mp* *p* *f* *mp*
msp sp msp

183

B. Fl. *ff* *sfp* *f*

Ob. *ff* *f* *pp* *mp* *pp* *mp*

B. Cl. *ff* *f* *bisb.* *f*

Tbn. *ff* *p* *p*

Perc. *ff* *fp* *f* *f*

Perc. *bass drum* *superball* *low gong (superball)* *high gong*

Pno. *scrape strings with plectrum* *below dampers* *ffz* *fz* *f*

Vln. *arco* *ff* *ffz* *ff* *p* *ff* *p* *f* *p* *f* *p*

Vla. *arco* *ff* *f* *ff* *p* *ff* *p* *f* *p* *f* *p*

Vc. *ff* *ffz* *pizz.* *arco* *f* *p* *f* *p*

D.B. *ff* *ffz* *pizz.* *arco* *f*

189

B. Fl. *fp* *ff* *p*

Ob. *pp* *mp* *ff* *p*

B. Cl. *p* *ff* *p*

Tbn. *p* *pp* *mp* *p* *mp* *ff* *p*

Perc. *fp* *sfz* *pp*

Perc. instructions: bass drum superball, bass drum mallet rim shot, low gong superball, ord

Pno. *ff*

Pno. instruction: past dampers

Vln. *f* *p* *fp* *p* *ff*

Vln. instruction: ord

Vla. *f* *p* *fp* *p* *ff*

Vla. instruction: ord

Vc. *f* *p* *fp* *p* *ff*

Vc. instruction: ord, st

D.B. *p* *f* *p* *f* *p* *mp* *p* *ff*

D.B. instructions: multiphonic, mst slow, msp

199 [h]- [z]- U → S te [h]- [t]- [kh]- [s]- [t] ti-le pek ti-le pek-te [h]- [l]- U → S [t][h]-

Picc. *pp* *pp*

Ob. *pp*

B. Cl. *pp*

Tbn. 199

Perc. 199 high gong low gong *mp* *p*

Pno. 199

Vln. 199 *p* mst

Vla. 199 *mp* *p sempre* st sp st

Vc. 199 *fp* (*p sempre*) mst

D.B. 199 *p sempre* mst very slow bow sp mst

ritardando ♩ = 54

204 [k] [n] [s]

Picc. *pp*

Ob.

B. Cl.

204

Tbn.

204 high gong low gong

Perc. *mp* *p*

204

Pno.

204

Vln. *mp* *st*

Vla. *mp* *st*

Vc. *pp* *mp* *st* *sp* *st*

D.B. *p* *mst* *slow*

Include 1 string on the second half of the circular bow

ord

mst

st

sp

st

mst

slow

214

B. Fl.

Ob.

B. Cl.

214

Tbn.

214

Perc.

214

Pno.

Vln.

Vla.

Vc.

D.B.

slow circular bow

st

sp

mst

Detailed description: This page of a musical score covers measures 214 to 218. The instruments are arranged in a standard orchestral layout. The woodwind section (Bass Flute, Oboe, Bass Clarinet) and brass section (Tuba) are mostly silent, indicated by rests. The Percussion part has rests. The Piano part is also silent. The string section (Violins, Violas, Cellos, Double Basses) is active. The Violin I part starts with a first measure rest, followed by a melodic line with a triplet and a first ending bracket. The Violin II part has a first measure rest, followed by a melodic line with a first ending bracket and a 'sp' (sforzando) marking. The Viola part has a first measure rest, followed by a melodic line with a first ending bracket and a 'mst' (messa di voce) marking. The Violoncello part has a first measure rest, followed by a melodic line with a first ending bracket and a 'mst' marking. The Double Bass part has a first measure rest, followed by a melodic line with a first ending bracket. The 'slow circular bow' instruction is placed above the Violoncello part. The 'st' marking is above the Violin I part. The 'sp' marking is above the Violin II part. The 'mst' marking is above the Violoncello part.

219

B. Fl.

Ob.

B. Cl.

219

Tbn.

219

Perc.

219

Pno.

219

Vln.

Vla.

Vc.

D.B.

Detailed description: This page of a musical score covers measures 219, 220, and 221. The score is arranged in a system with ten staves. The woodwind section (B. Fl., Ob., B. Cl.) and brass section (Tbn.) have rests in measures 219 and 220, with a single quarter note in measure 221. The Percussion staff has rests in measures 219 and 220, and a single quarter note in measure 221. The Piano staff has rests in measures 219 and 220, and a single quarter note in measure 221. The string section (Vln., Vla., Vc., D.B.) features long, sustained notes in measures 219 and 220, with some dynamics markings and articulation. In measure 221, the strings play a single quarter note. The page number 43 is centered at the bottom.