

BILOBA FOR CHAMBER ENSEMBLE

A THESIS IN
MUSIC COMPOSITION

Presented to the Faculty of the University
of Missouri-Kansas City in partial fulfillment of
the requirements for the degree

MASTER OF MUSIC

by

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BILOBA FOR CHAMBER ENSEMBLE

Zi Hua Tan, Candidate for the Master of Music Degree

University of Missouri-Kansas City, 2012

ABSTRACT

Biloba is a chamber piece for eight instruments inspired by the *Ginkgo biloba* tree. In an abstract way, the piece attempts to capture the movements – to me, the structural details of a tree give the illusion of dancers frozen in time – and textures exhibited by the tree, as well as the environment in which it inhabits.

Many transformations take place in this piece. In terms of the general form, it loosely traces the evolution of the Ginkgo leaves from the Permian era to the present day in retrograde. The compositional materials were molded according to different permutations of the plot of the pitchfork bifurcation equation in the supercritical case, which bears resemblance to the outline of a typical fan-shaped Ginkgo leaf.

Aesthetically, the different levels of vibrationality of the sounds produced by the instruments were used to mirror the different energy states of living objects in nature. Each instrument has a unique set of vibration gradations. The flute, for example, generally progresses in this fashion: pure tone, *molto vibrato*, timbral trill, trill, *tremolo*, and successive triplets.

The sonic elements were flexibly laid out with mathematical models, mainly systems based on palindromes and the Fibonacci series. Palindromes can manifest themselves in multifarious way, from the number of beats in a group of measures in a phrase to the unfolding

of pitches in a musical gesture. One instance of the usage of the Fibonacci series is in the time of entry of a similar gesture for each instrument.

The harmonic language of the piece was derived from a pool of spectra, namely the natural harmonics of B2 and A1 (with C4 as middle C), inverted natural harmonics of B5, and two artificially constructed harmonic series based on the other three spectra.

APPROVAL PAGE

The faculty listed below, appointed by the Dean of the Conservatory of Music and Dance, have examined a thesis titled “Biloba,” presented by Zi Hua Tan, candidate for the Master of Music degree, and certify that in their opinion it is worthy of acceptance.

Supervisory Committee

James Mobberley, D.M.A., Committee Chair
Conservatory of Music and Dance

Paul Rudy, D.M.A.
Conservatory of Music and Dance

Chen Yi, D.M.A.
Conservatory of Music and Dance

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INSTRUMENTARIUM

Flute

Clarinet in B-flat

Horn in F

Piano

Violin

Viola

Violoncello

Double Bass

Duration: 9-10 minutes

PERFORMANCE NOTES

Accidentals apply to the notes they precede. Repeated notes in a bar will follow the accidental of the nearest prior note

Senza vibrato to *poco vibrato* must be employed at all times unless notated otherwise

All tremolos are unmeasured

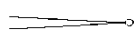

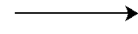
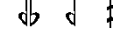

Depending on the acoustics of the concert hall this piece will be played in, some leeway to the tempi is allowed. The proportional relationship between each tempo, however, must be observed

Duration: ca. 9'30"

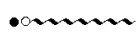
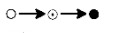


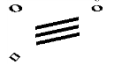
Symbols & Abbreviations

General

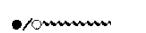


<i>ST</i>	sul tasto
<i>SP</i>	sul ponticello
<i>ORD/ ord</i>	ordinary bowing position or blowing technique
<i>norm.</i>	normale
<i>mv</i>	molto vibrato (wider than usual instead of faster)
<i>sv</i>	senza vibrato
<i>c.l.b.</i>	col legno battuto
<i>WT</i>	whistle tone
<i>sub pont.</i>	sub ponticello: playing behind the bridge

	diminuendo al niente
	crescendo dal niente
	gradually change the technique from one to another
	quartertunes (-3/4, -1/4, +1/4, +3/4)
	highest/ lowest possible note

Woodwinds

	timbral trill, produced by alternating between different fingerings for the same note (with noticeable variations in pitch)
	change the embouchure gradually: breathy without pitch, breathy with pitch, normal
	tongue ram to produce a pizzicato-like attack
	multiphonics
	harmonic trill: alternate between two harmonics (of different order) rapidly while keeping the pitch constant

Horn

	mute trill: alternate one finger into and out of the bell end of the brass mute
	blow with a lot of force, as if saying "WHAT!", to produce a strong airy attack on the horn
	multiphonics

Piano

P.1

right (damper) pedal

P.2

middle (sostenuto) pedal

P.3

left (una corda) pedal



play inside the piano



suppress the string near to the damper while playing the key normally



P.1

gradually release the pedal



depress the key(s) silently

Strings



notes to be played *col legno battuto*



Bartok pizzicato



speed of tremolo: getting more rapid, rapid, and getting less rapid



granular sound (overpressure)



harmonic glissando



saltato



arpeggiated chord up or down on the strings behind the bridge (sub pont.)



hammer-on

H

ACKNOWLEDGEMENTS

My sincerest gratitude must be extended to the faculty at the Conservatory of Music and Dance at UMKC – James Mobberley, Chen Yi, Paul Rudy, Zhou Long, Laura Gayle Green, Reynold Simpson, Andrew Granade, Joe Parisi, Robert Bode, and Sarah Tyrell – for their endless support and guidance. Their dedication to their craft as musicians as well as educators has inspired me to push myself further. Dr. Mobberley, in particular, thank you for giving me invaluable insights into the art of composing. I would also like to thank my friends and colleagues, with whom I share not only ideas but great camaraderie. And finally, to the pillars of my strength, my parents, Tan Ban Tiek and Lim Bi Tyu, who have shown me unconditional love and have never ceased believing in me.

BILOBA

Score in C

Biloba
2012

Zihua Tan

(♩ = c. 63)

Flute

Clarinet in B \flat

Horn in F

Piano

Violin

Viola

Violoncello

Double Bass

ppp

pp

con sord. (brass "transposing" mute)

pluck

mf

P.1

pp

pp

pp

con sord.

H

* Change from normal tone, to breathy tone (diamond-shaped + *), to unpitched very breathy tone (diamond-shaped + x-mark on the stem + o)

The musical score is arranged in a standard orchestral format with the following parts from top to bottom:

- Fl. (Flute):** Features a trill marked with an asterisk and the instruction "overblow harmonics & trill". Dynamics range from *mp* to *pp*.
- Cl. (Clarinet):** Features a long melodic line with dynamics from *pp* to *mp*.
- Hn. (Horn):** Features a melodic line with dynamics from *pp* to *mp*. A bracketed section is marked with three asterisks (***) and a trill symbol.
- Pno. (Piano):** Features a complex rhythmic pattern in the left hand with dynamics from *pp* to *ppp*. A glissando is marked "gliss." with a downward arrow. A bracketed section is labeled "P.1".
- Vln. (Violin):** Features a melodic line with dynamics from *pp* to *mp*. A bracketed section is labeled "ST".
- Vla. (Viola):** Features a melodic line with dynamics from *mp* to *p*. A bracketed section is labeled "ST".
- Vc. (Violoncello):** Features a melodic line with dynamics from *mp* to *pp*. A bracketed section is labeled "sv".
- Db. (Double Bass):** Features a rhythmic pattern with dynamics from *mp* to *pp*. A bracketed section is labeled "ST arco".

*While playing a trill, overblow the harmonics according to the contour; the note value of each harmonic is just an approximation
 ** Harmonic gliss.: make a glissando along the approximate indicated line(s) with a 'harmonic' touch. Along the glissando, white noise or harmonics may be sounded. The initial note (square notehead) may or may not be a harmonic
 *** Alternate one finger into and out of the bell end of the brass mute (transposing mute)

Musical score for page 3, measures 9-12. The score is arranged in a standard orchestral format with the following instruments and parts:

- Flute (Fl.):** Measures 9-12. Dynamic markings: *pp*, *mf*. Includes a *WT* (written texture) instruction.
- Clarinet (Cl.):** Measures 9-12. Dynamic markings: *p*, *mf*, *mp*, *p*. Includes fingerings 5, 7, 5, 3.
- Horn (Hn.):** Measures 9-12. Dynamic markings: *p*, *pp*. Includes a *(tr)* (trill) instruction.
- Piano (Pno.):** Measures 9-12. Dynamic markings: *PPP*, *P.1*, *P.3*.
- Violin (Vln.):** Measures 9-12. Dynamic markings: *pp*, *pp*, *mp*, *mf*, *mp*, *pp*. Includes performance instructions: *sv*, *ST*, *SP*, *ORD*, *sv*.
- Viola (Vla.):** Measures 9-12. Dynamic markings: *ppp*, *mp*, *mf*, *pp*. Includes performance instructions: *ORD*, *sv*.
- Violoncello (Vc.):** Measures 9-12. Dynamic markings: *p*, *mf*, *p*. Includes performance instructions: *III*, *SP*, *ST*.
- Double Bass (Db.):** Measures 9-12. Dynamic markings: *mp*, *p*, *ppp*. Includes performance instructions: *sv*, *mv*, *sv*, *ST*, *SP*.

The score is in 3/4 time and features various dynamic markings and performance instructions throughout the measures.

14

Fl. *pp* *pp* *mf* *mf* *p* *mf*

Cl. *pp* *mp*

Hn. *mp* *mf* *pp* *pp*

Pno. *ppp* P.1 P.3 *pp* P.1

Vln. *pp* *mf* *pp* *mf* *pp*

Vla. *mf* *p* *ppp*

Vc. *ppp* *mf* *p*

Db. *mp* *pp*

Dynamic markings: *pp*, *mf*, *p*, *mp*, *ppp*, *pp*, *mf*, *pp*, *ppp*, *mf*, *p*, *pp*, *ppp*, *mf*, *p*, *pp*, *mp*, *pp*.

Performance markings: *sv*, *mv*, *ORD*, *III*, *5*, *7*, *3*, *7*, *5*, *7*, *5*, *7*, *5*, *7*.

17 *mv* → *sv* *p* *mf* *f* *mf* *mv* *mv*

Fl. *timbral trill* *mf* *f*

Cl. *mf* *f*

Hn. *pp* *mp*

Pno. *mf* * *slap with palm*

Vln. *pp* *mf* *f*

Vla. *mp* *mf* *f* *mv* *mv*

Vc. *pp* *mf* *f* *ORD SP ORD SP ORD SP* *ORD*

Db. *f*

* Slap on the strings at the lowest register with the palm

(♩ = c. 72)

19

Fl. *sv*
mf *p* *pp*

Cl. *mf* *p* *pp* *pp* *mf* *p*

Hn. *mf* *p*

Pno. *norm.*
ppp *mp* *mf* *p* *pp*
P.1.

(♩ = c. 72)

Vln. *mf* *mp* *pp*

Vla. *sv* *ORD* *SP* *ORD* *sv* *ORD* *mv* *ORD* *SP* *ORD*
mf *f* *mp* *pp* *pp* *mf*

Vc. *mf* *pp*

Db. II *mf* *p* *p* *mf*

24

Fl. *pp* *f*

Cl. *pp* *mf* *p* *sfz* *slap

Hn. *pp* *mf* *pp* *sfz* **"WH!"

Pno. *pp* *mf* *pp*

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

Vla. *mv* *sv* *pp* *sfz*

Vc. *pp* *mf* *pp* *mf* *pp*

Db. *pizz.* *mf* *p*

ORD → SP
norm → SP

H

* Tongue ram to produce a pizzicato-like attack
** Blow with a lot of force, as if saying "WHAT!", to produce a strong airy attack

28

Fl. *WT* *p* *ord* *tr* *pp* *mf* *f*

Cl. *pp* *mf* *f*

Hn. *pp* *mf* *f* *pp*

Pno. ** depressed* *mf* *tr mp* *tr mf*

Vln. *p* *mf* *pp*

Vla. *norm.* *II* *p* *mf* *ST* *pp* *ST* *SP* *mf*

Vc. *mv arco* *pp* *f* *pp*

Db. *pp* *f* *pp*

8va...1 P.2 P.1 P.1

* Depress the indicated notes silently and hold the sostenuto pedal

Musical score for measures 32-34, featuring Flute (Fl.), Clarinet (Cl.), Horn (Hn.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.).

Measures 32-34 are marked with a 3/4 time signature. The score includes various dynamics and articulations:

- Flute (Fl.):** *p*, *f*, *p*
- Clarinet (Cl.):** *mp*, *pp*, *f*, *pp*, *f*, *pp*
- Horn (Hn.):** *pp*, *mp*, *f*, *p*
- Piano (Pno.):** *p*, *pp*, *f*, *p*
- Violin (Vln.):** *p*, *f*, *mp*, *ff*, *mf*, *sfc*, *pizz.*
- Viola (Vla.):** *pp*, *pp*, *f*, *pp*
- Violoncello (Vc.):** *pp*, *mf*, *f*, *p*, *f*, *pp*
- Double Bass (Db.):** *f*, *p*, *pp*

Articulations include *tr.* (trills), *ord.* (ordos), *flz.* (flautando), *pp.* (pianissimo), *f.* (forte), *mp.* (mezzo-piano), *ff.* (fortissimo), *mf.* (mezzo-forte), *p.* (piano), *pizz.* (pizzicato), *c.l.b.* (crescendo), and *norm.* (normal).

* Overpressure on the bow

36 *WT*

Fl. *p*

Cl. *slap*
sfz
pp *mf* *p*

Hn. *"WH!"*
sfz

Pno. *sfz*
mf
P.1

Vln. *arco*
p

Vla. *tr*
pp

Vc. *pizz.*
sfz
arco
sv
pp *mp* *f* *pp*

ORD *mv* → *SP* → *ST*

Detailed description: This page of a musical score covers measures 36 to 40. The score is for a full orchestra. Measure 36 starts with a key signature change to one sharp (F#) and a time signature change to 3/4. The Flute part has a *WT* (Woodwind Transition) marking and plays a sustained note with a *p* dynamic. The Clarinet part has a *slap* marking and a *sfz* dynamic, followed by a *pp* dynamic and then a melodic line with *mf* and *p* dynamics, including triplet and septuplet markings. The Horn part has a *"WH!"* marking and a *sfz* dynamic. The Piano part has a *sfz* dynamic and a *mf* dynamic, with a *P.1* marking. The Violin part has an *arco* marking and a *p* dynamic. The Viola part has a *tr* (trill) marking and a *pp* dynamic. The Violoncello part has a *pizz.* (pizzicato) marking and a *sfz* dynamic, followed by an *arco* marking and a *sv* (sustained) marking, with dynamics of *pp*, *mp*, *f*, and *pp*. There are also markings for *ORD mv*, *SP*, and *ST* at the bottom of the page.

39 *flz.*
Fl. *pp* *mp* *f* *mp* *pp* *pp* *mf*

Cl. *f* *mp* *pp* *ord.*

Hn. *pp* *mf* *f*

Pno. *pp* *pp* *f*

(P.1) P.1

ORD → SP

Vln. *pp* *mf* *p* *f* *p* *mf* *p*

Vla. *tr.*

Vc. *pp* *mp* *ff*

Db. *pp* *mf* *pp*

Detailed description: This page of a musical score covers measures 39, 40, and 41. The score is for a full orchestra and piano. The key signature has one flat (B-flat major or D minor) and the time signature is 5/4. Measure 39 begins with a dynamic of *pp* and features a flute solo with a *flz.* (flautissimo) marking. The flute part includes several seven-note runs and a five-note run, with dynamics ranging from *pp* to *f*. The clarinet and horn parts provide harmonic support with chords and sustained notes. The piano part has a *pp* dynamic and includes a five-note run. The violin part has a dynamic range from *pp* to *f* and includes a first ending bracket. The viola part has trills. The cello and double bass parts have dynamics from *pp* to *ff*. Measure 40 shows the flute continuing its melodic line, with dynamics *pp* and *mf*. The clarinet and horn parts are mostly sustained. The piano part has a *pp* dynamic and a five-note run. The violin part has a dynamic of *pp*. The viola part has trills. The cello and double bass parts have dynamics *pp*, *mp*, and *ff*. Measure 41 concludes the section with a dynamic of *mf* for the flute. The clarinet and horn parts are sustained. The piano part has a *pp* dynamic and a five-note run. The violin part has a dynamic of *pp*. The viola part has trills. The cello and double bass parts have dynamics *pp*, *mp*, and *ff*.

42 *slap* *sfz* *ord* *mf* *f* *mf* *pp*

Fl.

slap *sfz*

Cl.

"WH!" *sfz* *flz.* *p* *f* *ord* *pp*

Hn.

Pno.

f *pp* *P.1* *f* *pp*

Vln.

c.l.b. *f* *norm.* *mf* *pp* *mp*

Vla.

c.l.b. *f* *norm.* *mf* *pp* *SP*

Vc.

c.l.b. *f* *norm.* *pp*

Db.

pizz. *sfz* *c.l.b.* *f* *norm.* *ORD* *SP* *ORD* *PP* *f* *PP*

45

Fl. *p* WT

Cl. *pp* *mp* *f* *flz.* *ord.*

Hn. *pp* *mp* *mf* *flz.* *ord.*

Pno. *pp* *f* *pp* *mf* *pp* ** depressed*

Vln. *ORD* *SP* *ORD* *SP* *ORD* *f* *mp* *f* *mp* *mf* *pp*

Vla. *f* *p* *f* *p* *mf* *pp* *SP* *ORD*

Vc. *tr* *mf* *pp* *III* *II pizz.* *sfz*

Db. *mf* *pp*

P.1 P.2

* Using the palms, depress - silently - as many black & white keys at the lowest register as possible

48

Fl.

Cl.

Hn.

Pno.

Vln.

Vla.

Vc.

Db.

ff *mf* *pp* *pp* *mf* *pp* *f* *pp* *p*

sfz *sfz* *pp* *mf* *ff* *mp* *pp* *mv* *p* *mf*

sfz *arco* *pp* *f* *p* *arco* *p*

f *p* *arco* *p*

ord *flz* *pp* *mf* *pp* *mf*

f *mf* *pp* *p*

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

ORD *SP* *ORD* *ORD* *SP* *ORD* *SP* *ORD* *sv* *mv* *sv*

(P.2) *P.1* *P.1*

tr *3* *3* *3*

III *5* *3*

H

arco *arco*

pp *mf* *ff* *mp* *pp* *mv* *p* *mf*

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

f *p* *arco* *p*

ord *flz* *pp* *mf* *pp* *mf*

f *mf* *pp* *p*

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

ORD *SP* *ORD* *ORD* *SP* *ORD* *sv* *mv* *sv*

(P.2) *P.1* *P.1*

tr *3* *3* *3*

III *5* *3*

H

arco *arco*

53

Fl. *ff* *p mf* *pp* *ord* *f*

Cl. *ff* *p* *f* *pp* *ord* *f* *pp*

Hn. "WH!" *sfz* *p* *mf*

Pno. *sfz* *pp* *ff* *mf* *pp* *8va* *sfz*

Vln. *f* *pp* *saltato* *f* *p*

Vla. *f* *p* *pp* *mf* *f* *pp* *saltato*

Vc. *pp* *mf* *mf* *sffz* *norm.* *f*

c.l.b.

56 *flz.*
Fl. *pp* *mf* *ff* *mp* *pp*
Cl. *pp* *f*
Hn. *pp* *mf* *f* *mf*
Pno. *ff* *mf* *p*
(P.1) P.1
Vln. *pp* *f* *mp* *pp* *ORD* *SP* *ORD*
Vla. *pp* *f* *pp*
Vc. *pp* *ORD*
Db. *pp* *fp*

Detailed description of the musical score: The score is for measures 56, 57, and 58. Measure 56 is in 3/4 time, and measure 58 is in 4/4 time. The Flute part (Fl.) starts with a *pp* dynamic and a *flz.* (flautissimo) marking, playing a melodic line with a slur over measures 56-57. The Clarinet (Cl.) part is mostly silent in measure 56 but enters in measure 58 with a *pp* dynamic and a *f* dynamic. The Horn (Hn.) part has a *pp* dynamic in measure 56 and a *mf* dynamic in measure 58. The Piano (Pno.) part has a *ff* dynamic in measure 56 and a *p* dynamic in measure 58. The Violin (Vln.) part has a *pp* dynamic in measure 56 and a *f* dynamic in measure 57, with *ORD* and *SP* markings. The Viola (Vla.) part has a *pp* dynamic in measure 56 and a *f* dynamic in measure 57. The Violoncello (Vc.) part has a *pp* dynamic in measure 56 and a *pp* dynamic in measure 58. The Double Bass (Db.) part has a *pp* dynamic in measure 56 and a *fp* dynamic in measure 58. There are also *ORD* and *SP* markings in the Db. part.

59

Fl. *ord*
p *ff* *flz.* *p* *mf*

Cl. *slap* *ord*
sfz *pp* *mf* *pp* *mp*

Hn. *ord*
pp *p*

Pno. *ff* *p* *f* *p*

(P.1)

Vln. *pizz.* *arco*
sfz *p* *f* *p* *ff* *mf* *f* *p*

Vla. *ORD* *SP* *ORD*
f *pp* *p* *mf* *ff*

Vc. *SP* *SP* *ORD* *sub-pont*
ff *mf* *sfz* *p* *mf* *ff*

Db. *ORD* *SP* *ORD*
pp *p*

* Sub ponticello: play behind the bridge

62 *slap*
sfz
ord
p
sfz
ord
p
ff
p

Fl.

slap
sfz
ord
p
f
pp
flz.
p
mf
ff

Cl.

f
mp
pp
p

Hn.

p
mf
ff
depressed
sfz
p
f
p

Pno.

8va...
sfz
P.1
(loco)
P.2
p
f
p

pizz.
sfz
arco
pp
mf
c.l.b.
sfz
ORD
norm.
SP
ORD
p
ff
p

Vln.

sfz
pp
mf
sfz
ORD
SP
ORD
f
pp

Vla.

sfz
pp
pp
f
pp

Vc.

salato
f
p
pp
mf
ORD
SP
ORD
ff
mf
f
p

Db.

ORD
SP
ORD
mf
ff
ORD
SP
ORD
mf
f
mf
ff
pp
pp
sfz

66

Fl. *p* *sfz* *ord.* *flz.* *pp*

Cl. *flz.* *p* *f* *pp* *ord.* *pp*

Hn. *ff* *mf* *pp* *mp* *pp*

Pno. *sfz* *pp* *P.1*

Vln. *p* *ff* *p* *pp* *ORD* *SP* *ORD* *mp* *pp*

Vla. *ff* *p* *pp* *mp* *p* *saltato*

Vc. *mf* *f* *p* *fff* *p* *pp* *mp* *pp*

Db. *pp* *mp* *pp* *sfz* *senza sord.*

poco rit.

69 (Meno mosso ♩ = c. 66)

Fl. *p* *mf* *p* *mf* *p* *mf* *p* *mf* *p*

Cl. *mp* *mf* *pp*

Hn.

Pno. *f*

(P.1)

Detailed description: This system contains the staves for Flute (Fl.), Clarinet (Cl.), Horn (Hn.), and Piano (Pno.). The Flute part features a complex rhythmic pattern of eighth notes with slurs and dynamic markings of *p*, *mf*, and *p*. The Clarinet part has a more melodic line with dynamic markings of *mp*, *mf*, and *pp*. The Piano part features a sustained chord in the right hand and a descending line in the left hand, ending with a forte (*f*) dynamic. A rehearsal mark (P.1) is placed below the piano staff.

(Meno mosso ♩ = c. 66)

Vln. *pp* *mf* *pp*

Vla. *mf* *pp* *pp* *mf*

Vc. *mf* *pp* *pp* *mf*

Db. *mf* *pp* *pp* *mf* *ORD*

Detailed description: This system contains the staves for Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). All four instruments play a rhythmic pattern of eighth notes with triplets, marked with *ST*. The Violin part has dynamics of *pp*, *mf*, and *pp*. The Viola part has dynamics of *mf*, *pp*, *pp*, and *mf*. The Violoncello part has dynamics of *mf*, *pp*, *pp*, and *mf*. The Double Bass part has dynamics of *mf*, *pp*, *pp*, and *mf*, and includes a rehearsal mark *ORD* at the end.

72

Fl. *ord*

Cl. *ord*

Hn. *senza sord*
ff

Pno. *fff*
(P.1) *ff*

Vln. *ORD*
p *mf* *ff* *mf*

Vla. *ORD*
p *mf*

Vc. *ORD*
pp *mf* *p* *mf*

Db. *ff* *fff* *mf* *fff*

Detailed description: This page of a musical score contains measures 72 and 73. The score is for a full orchestra. The Flute and Clarinet parts (Fl. and Cl.) have a dynamic marking of *ord* and a *p* dynamic. The Horn part (Hn.) is marked *senza sord* and *ff*. The Piano part (Pno.) features a complex rhythmic pattern with sixteenth notes and a dynamic of *fff*, with a first ending bracketed and marked *ff*. The Violin (Vln.) and Viola (Vla.) parts have a dynamic of *ORD* and various dynamics (*p*, *mf*, *ff*) with triplet markings. The Violoncello (Vc.) part has a dynamic of *ORD* and dynamics of *pp*, *mf*, *p*, and *mf* with a *7* marking. The Double Bass (Db.) part has dynamics of *ff*, *fff*, *mf*, and *fff*. The score includes various musical notations such as slurs, accents, and dynamic markings.

74

Fl. *fff* *p* *fff*

Cl. *p* *fff* *p* *fff*

Hn. *mf* *pp* *ff* *mf*

Pno. *f* *mp* *p*

(P.1) \wedge \wedge \wedge \wedge

Vln. *ff* *mf* *fff*

Vla. *ff* *mf* *ff* *mf* *fff* *f*

Vc. *p* *f* *mf* *ff* *mf*

Db. *mf* *pp* *fff*

ORD \rightarrow SP \rightarrow ORD \rightarrow

sub pont.

Detailed description: This page of a musical score covers measures 74 to 80. It features eight staves: Flute (Fl.), Clarinet (Cl.), Horn (Hn.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The Flute and Clarinet parts are characterized by rapid sixteenth-note passages with frequent triplets. The Horn part includes some rests and dynamic shifts. The Piano part has a complex texture with sixteenth-note patterns and some chords. The Violin and Viola parts play dense sixteenth-note textures, with the Viola part including first and second endings (ORD and SP). The Violoncello part features long, sweeping lines with dynamic markings. The Double Bass part has a more melodic line with some triplet patterns. Dynamic markings range from *pp* to *fff*. Measure numbers 74, 75, 76, 77, 78, 79, and 80 are indicated at the top of the staves.

Musical score for page 23, measures 77-84. The score is arranged in a standard orchestral format with the following parts and dynamics:

- Flute (Fl.):** Measures 77-84. Dynamics: *f*, *fff*, *pp*.
- Clarinet (Cl.):** Measures 77-84. Dynamics: *f*, *fff*, *p*, *ff*, *pp*.
- Horn (Hrn.):** Measures 77-84. Dynamics: *ff*.
- Percussion (Perc.):** Measures 77-84. Dynamics: *fff*, *mf*, *pp*. Includes a *(P1)* marking.
- Violin (Vln.):** Measures 77-84. Dynamics: *mf*, *pp*. Includes *SP* and *ORD* markings.
- Viola (Vln. II):** Measures 77-84. Dynamics: *f*, *mf*, *pp*. Includes *SP* and *ORD* markings.
- Violoncello (Vcl.):** Measures 77-84. Dynamics: *f*, *mf*, *pp*. Includes *SP* and *ORD* markings.
- Double Bass (Db.):** Measures 77-84. Dynamics: *f*, *pp*, *mf*, *p*. Includes *SP* and *ORD* markings.

80

Fl.

Cl.

Hn.

Pno.

Vln.

Vla.

Vc.

Db.

mf

ff

ff

fz.

ord

p

fff

f

pp

f

fff

p

8va

(P.1) ^

ord → *SP*

SP → *ORD*

ORD → *SP*

SP → *ORD*

fff

ff

mf

fff

ppp

WT

84

Fl. -

Cl. - *f* - *mp* - *pp* - *pp*

Hn. - *pp* - *ff* - * multiphonic

Pno. - *f* - *ff* - *pp*

(P.1)

Vln. -

Vla. - *mf* - *f* - *mp* - *pp*

Vc. - *pp*

Db. - *pp* - *mf* - *p* - *pp*

con sord.
ORD

ORD -> SP

ORD -> SP

* Sing the upper note while playing the bottom one

Musical score for measures 86-88. The score includes parts for Flute (Fl.), Clarinet (Cl.), Horn (Hn.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Cello (Vc.), and Double Bass (Db.).

Flute: Measure 86: *norm.*, *mf*. Measure 87: *multiphonic*, *fff*. Measure 88: *f*, *pp*.

Clarinet: Measure 86: *f*. Measure 87: *fff*. Measure 88: *mf*, *pp*.

Horn: Measure 86: *mf*, *pp*.

Piano: Measure 86: *slap*, *sffz*, P.1, $\frac{1}{2}$. Measure 87: $\frac{1}{2}$, *sffz*, P.1, *ff*. Measure 88: *ff*, *pp*.

Violin: Measure 86: *mp*. Measure 87: *ff*. Measure 88: *pp*.

Viola: Measure 86: *mp*. Measure 87: *ff*. Measure 88: *pp*.

Cello: Measure 86: *pp*. Measure 87: *f*. Measure 88: *pp*.

Double Bass: Measure 86: *SP*, *ffp*. Measure 87: *ffp*. Measure 88: *fpp*, *déporre l'arco*.

* Play harmonic gliss. in a triplet-like rhythm as rapidly as possible according to the contour (*ad lib.*); repeat until end of the line
** Play the notes in the box as fast as possible until end of the duration indicated

88

Fl. *p* *ff* *f* *slap*

Cl. *f* *ff* *pp*

Hn. *p*

Pno. *mf* *pp* * *gliss.*

(P.1) *sffz* P.1

Vln. *p* *fff* *sffz* *f*

Vla. *f* *pizz.*

Vc. *ff* *pp* *fff* *p* *arco*

Db. *f* *sffz*

I
III
II
IV

* *Gliss.* on the strings at the lowest register as bound by the most leftward section of the frame

** *Slap* on either side of the body of the double bass according to the relative 'pitch' of the attack: higher two notes to be played on the upper bout, lower on the bottom; number indicates the number of fingers to be used; either hand can be used at each instant

90

Fl. *norm.* *ff*

Cl. *slap* *f* *3* *3* *3* *norm.* *p* *mf* *f* *ff*

Hn. *f* *p*

Pno. *gliss.* *p*

(P.1) $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ *

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

Vla. *sffz* *p* *ff* *p* *sffz* *arco* *p* *ff*

Vc. *ff* *pizz.* *3* *3* *arco* *p* *mf* *f* *ff*

Db. *p* *ff* *1* *2* *3* *4* *1* *7* *4* *1* *4* *1* *3* *2* *1* *3* *3* *3* *1* *2* *4* *prende l'arco* *f* *sffz* *p*

94

Fl.

Cl.

Hn.

Pno.

Vln.

Vla.

Vc.

Db.

ff *mf* *p*

mf *f* *ff* *f* *pp*

ff *mf* *pp*

f *ff* *mf* *mp* *pp*

ff *mf* *ppp*

pp *SP* *ORD*

ORD *SP*

ORD *SP*

ORD *SP*

8va
P.I.

98 *norm.*
Fl. *f* *ff* *p*
Cl. *ff* *mf* *pp* *ff*
Hn. *p*
Pno. *slap* *sfz* *1/2* *1/2* *ff* *pp*
P:1 ***
Vln. *p* *ff* *pp*
Vla. *p* *ff* *pp*
Vc. *SP* *ffp* *f*
Db. *ffp* *ffp* *deporre l'arco*

100 *slap*
sffz *f* *ord* *ff* *mf* *pp*

Fl.

slap
sffz *f* *ord* *ff* *mf* *pp*

Cl.

p *f* *p* *f*

Hn.

p *f* *p* *ff*

Pno.

gliss.
sffz

(P.1) *ORD* *SP*

pizz. *ff* *f* *arco* *ff* *mf* *pp*

Vln.

pizz. *ff* *f* *arco* *mf* *f*

Vla.

pizz. *ff* *f* *sffz* *mf* *f*

Vc.

sffz *sfc* *mf* *ff* *mf* *mp* *pp* *arco* *p*

Db.

p *f* *sffz* *f* *mf* *pp* *prende l'arco*

104

WT

Fl. *p* *mf* *f* *mf*

Cl. *p* *f*

Hn. *f* *p* *con sord.*

Pno. *mf* *ff* *mf*

Vln. *p*

Vla. *mf* *p*

Vc. *mf* *f* *mp* *pp*

Db. *p*

ORD → SP SP → ORD

P.1

Detailed description: This page of a musical score covers measures 104 and 105. The score is for a full orchestra and includes parts for Flute (Fl.), Clarinet (Cl.), Horn (Hn.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Cello (Vc.), and Double Bass (Db.). Measure 104 begins with a key signature change to D major and a time signature change to 2/4. The Flute part starts with a rest, then plays a melodic line with dynamics *p*, *mf*, *f*, and *mf*. The Clarinet part has a melodic line with dynamics *p* and *f*. The Horn part has a melodic line with dynamics *f* and *p*, and includes the instruction *con sord.* (con sordina). The Piano part has a complex rhythmic accompaniment with dynamics *mf*, *ff*, and *mf*. The Violin part has a melodic line with dynamic *p*. The Viola part has a melodic line with dynamics *mf* and *p*. The Cello part has a melodic line with dynamics *mf*, *f*, *mp*, and *pp*. The Double Bass part has a melodic line with dynamic *p*. The score includes various musical notations such as slurs, ties, and dynamic markings. There are also some performance instructions like *WT* (Woodwind Transition) and *ORD → SP* / *SP → ORD* (Order of Reed/Saxophone).

107

Fl. *slap sfz f* *p*

Cl. *slap sfz* *p ff p*

Pno. *ff* *p pp*

Vln. *ff* *p*

Vla. *ff* *p*

Vc. *gettato f* *norm. p mf f*

Db. *pizz. mf*

ORD

tr

Detailed description: This is a page of a musical score for measures 107, 108, and 109. The score is written for seven instruments: Flute (Fl.), Clarinet (Cl.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The music is in 2/4 time and features a key signature of one flat. Measure 107 contains triplets for the Flute and Clarinet. Measure 108 is a half-measure rest for the Flute and Clarinet, while the Piano, Violin, and Viola play sustained chords. Measure 109 contains a trill for the Flute and Clarinet, and a tremolo for the Violoncello. Dynamics range from fortissimo (ff) to pianissimo (pp). Performance instructions include 'slap', 'sfz', 'pizz.', 'norm.', and 'ORD' (Ordinary).

110 *flz.*
p *mf* *ff* *mf* *p* *sfz* *ord. slap*

Fl.

Cl. *pp* *ff* *mf* *pp*

Hn. *pp*

Pno. *ff* *f* *p* *f* *ff*

(P.1) A

Vln. *pp*

Vla. *pp* *ff*

Vc. *SP* *(tr)* *ff* *pp* *c.l.b.* *sfz* *p*

Db. *arco* *f* *pp*

Detailed description: This page of a musical score contains measures 110, 111, and 112. The Flute part (Fl.) begins with a *flz.* (flautando) marking and a *p* dynamic, followed by a *mf* section with a 7-measure slur, a *ff* section with a 7-measure slur, another *mf* section with a 7-measure slur, and finally a *p* section with a *sfz* (sforzando) marking and an *ord. slap* (ordained slap) instruction. The Clarinet (Cl.) part starts with a *pp* (pianissimo) dynamic and a long note, followed by a *ff* section with a 7-measure slur, an *mf* section with a 7-measure slur, and ends with a *pp* dynamic. The Horn (Hn.) part has a *pp* dynamic and a long note. The Piano (Pno.) part features a *ff* dynamic, a *f* section with a 6-measure slur, a *p* section with a 6-measure slur, an *f* section with a 6-measure slur, and ends with a *ff* dynamic. The Violin (Vln.) part has a *pp* dynamic and a long note. The Viola (Vla.) part has a *pp* dynamic, a long note, and a *ff* section with a 3-measure slur. The Violoncello (Vc.) part has a *SP* (sordina) marking, a *(tr)* (trill) marking, a *ff* dynamic, a *pp* dynamic, a *c.l.b.* (crescendo) marking, a *sfz* marking, and a *p* dynamic with a 3-measure slur. The Double Bass (Db.) part has an *arco* marking, a *f* dynamic, and a *pp* dynamic.

112

Fl. *ffz* *p* *ff* *p* *ord.* *pp*

Cl. *p* *ff* *p* *ord.* *f*

Hn. *pp* *ff* *pp*

Pno. *pp* *f* *ff* *p* *sffz*

P.I.

Vln. *f* *p* *fff* *SP*

Vla. *gettato* *f* *p* *mf* *fff* *SP*

Vc. *norm. tr.* *ff* *p* *f* *p* *fff* *ff* *SP*

Db. *fff* *ff* *SP*

Detailed description: This page of a musical score covers measures 112 to 114. It features eight staves: Flute (Fl.), Clarinet (Cl.), Horn (Hn.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The Flute and Clarinet parts are highly active, with complex rhythmic patterns and dynamic markings such as *ffz*, *p*, *ff*, *ord.*, and *pp*. The Piano part includes triplets and dynamic shifts from *pp* to *f* and *ff*. The string section (Violin, Viola, Violoncello, Double Bass) features *saltato* and *gettato* markings, with dynamic markings ranging from *f* to *fff*. The Violoncello part includes a *norm. tr.* (normal trill) marking. The score is written in 4/4 time and includes various performance instructions and dynamic markings throughout.

115 (♩ = c. 63)

The score is for measures 115, 116, and 117. The tempo is marked as $\text{♩} = \text{c. } 63$. The instruments and their parts are:

- Flute (Fl.):** Measure 115 has a melodic line starting with a *mf* dynamic, transitioning to *pp* in measure 116. Measure 117 is a whole rest.
- Clarinet (Cl.):** Measure 115 has a melodic line starting with *p* and *flz.* (flautando), transitioning to *pp* in measure 116. Measure 117 has a whole rest.
- Horn (Hn.):** Measure 115 has a melodic line starting with *p* and *flz.*, transitioning to *ff* in measure 116. Measure 117 has a melodic line starting with *ord.* (ordinando), *mf*, and ending with *p*.
- Piano (Pno.):** Measure 115 has a *pp* accompaniment. Measure 116 has a *f* melodic line. Measure 117 has a *pp* accompaniment. Pedal markings (P.1) are present in measures 115 and 117.
- Violin (Vln.):** Measure 115 has a melodic line with triplets, starting with *ff* and *8va* (octave up), transitioning to *mf* in measure 116. Measure 117 has a melodic line starting with *p* and *ORD* (ordinando), transitioning to *pp*.
- Viola (Vla.):** Measure 115 has a melodic line with triplets, starting with *f* and *ORD*, transitioning to *pp*. Measure 116 has a melodic line starting with *ff* and *ORD*, transitioning to *mf*. Measure 117 has a melodic line starting with *ORD* and *SP* (sforzando), transitioning to *pp*.
- Violoncello (Vc.):** Measure 115 has a melodic line with triplets, starting with *f* and *ORD*, transitioning to *pp*. Measure 116 has a melodic line starting with *ff* and *ORD*, transitioning to *mf*. Measure 117 has a melodic line starting with *ff* and *ORD*, transitioning to *pp*.
- Double Bass (Db.):** Measure 115 has a melodic line with triplets, starting with *f* and *ORD*, transitioning to *mf*. Measure 116 has a melodic line starting with *mf* and *ORD*, transitioning to *pp*. Measure 117 has a melodic line starting with *mf* and *ORD*, transitioning to *pp*.

118

Fl. *p*

Cl. *flz.* *mp* *f* *7* *mp* *ord.* *pp* *pp*

Pno. *(tr)* *pp* (P.1)

Vln. *p*

Vc. *p* *ORD* *SP* *mf* *3* *3* *p* *ORD III* *mf* *5* *7*

120

Fl. *WT* *pp* *ord* *p*

Cl. *mf* *f* *mf* *pp* *flz.* *5* *p*

Vln. *pp*

Vc. *f* *ORD* *tr* *SP* *ORD* *f* *6* *7* *mf* *p*

Db. *H* *mf* *6* *p* *mf* *6*

123

Fl.

Cl.

Vc.

arco

ord

f

p

f

fz.

p

mf

SP

pp

126

Fl.

Cl.

Vln.

Vc.

WT

pp

ord

mf

p

pp

sempre gettato

ORD → *SP*

ORD → *SP*

ORD → *SP*

mf

ff

pp

mf

p

f

p

ff

fff

Musical score for measures 131-134, featuring Flute (Fl.), Clarinet (Cl.), Horn (Hn.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.).

The score is in 5/4 time and includes dynamic markings such as *ff*, *mf*, *f*, and *fff*. It also features performance instructions like *SP* (Sustained Pedal) and *ORD* (Ordinary). The Flute and Clarinet parts include complex rhythmic patterns with slurs and accents. The Piano part features dense chordal textures with slurs and accents. The string parts (Violin, Viola, Violoncello, Double Bass) are marked with *fff* and *f*, and include *SP* and *ORD* markings. The Horn part includes a *f* marking and a *tr* (trill) marking.

Musical score for measures 133-134, featuring Flute (Fl.), Clarinet (Cl.), Horn (Hn.), Piano (Pno.), Violin (Vln.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.).

Measures 133-134 are marked with a *tr* (trill) above the staff. The score includes dynamic markings such as *ff* (fortissimo), *f* (forte), *mf* (mezzo-forte), and *fff* (fortississimo). The Piano part includes a *P.1* marking and a *ff* dynamic. The Violin and Viola parts feature complex rhythmic patterns with *fff* and *f* dynamics. The Violoncello and Double Bass parts are marked with *SP* (Sustained Pedal) and *ff* dynamics. The score concludes with *ORD* (Order) markings for the Violoncello and Double Bass parts.

rit.

134

Fl. *mf* *p*

Cl. *f* *mf*

Hn. *mf* *p* *pp*

Pno. *f* *mf*

Vln. *ff*

Vla. *mf*

Vc. *mf* *ff* *mf* *ff*

Db. *f* *mp*

ORD

Detailed description: This page of a musical score covers measures 134 to 142. It features a woodwind section (Flute, Clarinet, Horn), Piano, Violin, Viola, Violoncello, and Double Bass. The woodwinds and Piano play long, sustained notes with dynamic markings of *mf*, *p*, and *pp*. The strings play a rhythmic pattern of eighth notes with dynamic markings of *ff*, *mf*, and *mp*. A *rit.* (ritardando) marking is present at the beginning of the section. The score includes various musical notations such as slurs, ties, and dynamic hairpins.

(♩ = c. 54)

135

Cl. *p*

Pno. *pp*

(P.1)

(♩ = c. 54)

Vln. *pp* *f* *pp*

Vla. *mf* *p*

Vc. *mf* *ff* *mp* *f* *mp* *f* *mp* *p*

Db. *mf* *p*

SP *mv* *tr sv* *ORD*

ORD *SP*

ORD *ORD* *SP*

138

Fl. *harmonic trem.*
pp *mf* *pp*

Cl. *p* *mf* *ord* *3* *p* *p*

Hn. *ppp*

Pno. *ppp*
P.1
P.3

Vln.

Vla. *(tr)* *SP* *pp*

Vc. *ORD* *sv* *SP* *mp* *mv* *mv* *sv*

Db. *IV*

141

WT

Fl. *mp* *pp*

Cl. *f* *mf* *p*

Hn. *flz.* *ord.* *p* *mf* *p*

Pno. *pluck* *mp* P.1 *8^{va}* *ppp* P.1 P.3

Vln. *SP* *pp* *SP* → *ORD*

Vla. *ORD* → *SP*

Vc. *ORD* *pp* *tr* *pp* *mf*

Db. *pp* *sv* → *mv* *mv* → *sv*

Detailed description: This page of a musical score covers measures 141 to 144. The score is for a full orchestra. The Flute part (Fl.) starts with a mezzo-piano (*mp*) dynamic and transitions to pianissimo (*pp*) in measure 142. The Clarinet (Cl.) part begins with a forte (*f*) dynamic, features a triplet in measure 142, and then moves to mezzo-forte (*mf*) and piano (*p*). The Horn (Hn.) part includes flageolet (*flz.*) and ordered (*ord.*) techniques, with dynamics ranging from piano (*p*) to mezzo-forte (*mf*) and back to piano (*p*). The Piano (Pno.) part is marked *pluck* and has a dynamic of mezzo-piano (*mp*). The Violin (Vln.) part starts with *SP* (Sordano Piano) and *pp*, then transitions to *ORD* (Ordered) in measure 142. The Viola (Vla.) part also transitions from *ORD* to *SP*. The Violoncello (Vc.) part begins with *ORD* and *pp*, includes a trill (*tr*) in measure 144, and has dynamics of *pp* and *mf*. The Double Bass (Db.) part starts with *pp* and uses *sv* (Sordano Violoncello) and *mv* (mezzo-violoncello) techniques, with dynamics of *pp*, *mf*, and *pp*. A legend on the right side of the page defines the *8^{va}*, *ppp*, P.1, and P.3 markings.

145

Fl. *pp* *mf* *pp* *pp* *ord* *pp*

Cl. *fz.* *f* *mp* *pp*

Hn. *ppp* *mp* *ppp*

Pno. *pp* *pp* *pp*

Viol. *pp* *mp* *pp*

Vla. *pp* *pp* *pp*

Vc. *p* *pp* *mp*

Db. *pp* *sv* *mv* *mv*

WT

ORD → SP

IV

(P.1)

(P.3)

Detailed description: This page of a musical score covers measures 145 to 148. It features eight staves: Flute (Fl.), Clarinet (Cl.), Horn (Hn.), Piano (Pno.), Violin (Viol.), Viola (Vla.), Violoncello (Vc.), and Double Bass (Db.). The Flute part begins with a triplet of eighth notes in measure 145, marked *pp*, followed by a half note marked *mf* and another triplet marked *pp*. In measure 146, it has a whole note marked *pp* with the instruction *ord*. The Clarinet part has a half note marked *fz.* in measure 145, followed by a half note marked *f* and a triplet marked *mp* in measure 146, and a half note marked *pp* in measure 147. The Horn part has a half note marked *ppp* in measure 145, followed by a half note marked *mp* in measure 146, and a half note marked *ppp* in measure 147. The Piano part has a half note marked *pp* in measure 145, followed by a half note marked *pp* in measure 146, and a half note marked *pp* in measure 147. The Violin part has a half note marked *pp* in measure 145, followed by a half note marked *mp* in measure 146, and a half note marked *pp* in measure 147. The Viola part has a half note marked *pp* in measure 145, followed by a half note marked *pp* in measure 146, and a half note marked *pp* in measure 147. The Violoncello part has a half note marked *p* in measure 145, followed by a half note marked *pp* in measure 146, and a half note marked *mp* in measure 147. The Double Bass part has a half note marked *pp* in measure 145, followed by a half note marked *sv* in measure 146, and a half note marked *mv* in measure 147. There are also dynamic markings *pp* and *mv* in measure 148. Performance instructions include *WT* (written trill), *ORD* (ordine), *SP* (sordina), *IV* (fourth position), and *pp* (pianissimo). Pedal markings (P.1) and (P.3) are shown at the bottom left.

149

Fl.

Cl.

Hn.

Pno.

Vln.

Vc.

Db.

pp

mp

pp

mf

mp

pluck

mp

P.1

pp

P.1

P.3

SP

(tr)

ORD

pp

sv

pp

flz.

ord

5

3

The musical score for measures 149-152 includes the following details:

- Flute (Fl.):** Measures 149-150 have a melodic line with a slur. Measure 151 has a *pp* dynamic. Measure 152 has a melodic line with a slur, *mp* dynamic, and a *pp* dynamic.
- Clarinet (Cl.):** Measures 149-150 have a melodic line with a slur, a *mf* dynamic, and a *flz.* marking. Measure 151 has a *pp* dynamic. Measure 152 has a melodic line with a slur, a *mp* dynamic, and a *pp* dynamic.
- Horn (Hn.):** Measures 149-150 are silent. Measure 151 has a melodic line with a slur, a *pp* dynamic, and a *mp* dynamic. Measure 152 has a melodic line with a slur and a *pp* dynamic.
- Piano (Pno.):** Measures 149-150 are silent. Measure 151 has a *pluck* marking, a *mp* dynamic, and a *P.1* marking. Measure 152 has a *pluck* marking, a *pp* dynamic, and *P.1* and *P.3* markings.
- Violin (Vln.):** Measures 149-150 have a melodic line with a slur. Measure 151 is silent. Measure 152 has a melodic line with a slur and a *pp* dynamic.
- Viola (Vc.):** Measures 149-150 have a melodic line with a slur, a *SP* marking, a *(tr)* marking, and a *ORD* marking. Measure 151 has a *pp* dynamic. Measure 152 has a melodic line with a slur and a *pp* dynamic.
- Double Bass (Db.):** Measures 149-150 have a melodic line with a slur, a *sv* marking, and a *pp* dynamic. Measure 151 is silent. Measure 152 has a melodic line with a slur and a *pp* dynamic.

154

Fl.

Cl.

Hn.

Pno.

Vln.

Vla.

Vc.

Db.

pp

pp

pp

pp

pp

mv → *sv*

WT

48

VITA

Zihua Tan was born in Kelantan, Malaysia. Notable recent works of his include: *Pangu* (2011) for zheng and tape, which was performed at the Kansas City Electronic Music & Arts Alliance's (KcEMA) Season Finale concert; *Leptosporangiate* (2011), which was featured in the Electronic Music Midwest Festival 2011; *Striation: Picea Abies* (2011) for Pierrot quintet, which earned him an honorable mention in the Mu Phi Epsilon Composition Competition; *Quercus* (2011) for solo timpani; *Omniya* (2010), an orchestral piece premiered by the Malaysian Philharmonic Orchestra (MPO); *Under the Homotopic Silhouettes* (2009), a quintet premiered by Ensemble Mosaik at the 1st Kuala Lumpur Contemporary Music Festival; and *Entanglement Entropy* (2008) for chamber orchestra, which was premiered by MPO during the MPO's Forumplus event, in which he was the youngest composer to be invited.

Tan's latest work, *Biloba*, will be performed by ensemble L'Arsenale at the Composit New Music Festival in Reiti, Italy. In 2011, he was the featured composer at the Beijing International Composers' Workshop. In 2008, he won the first prize at the HSBC Young Composers Competition with *Images of Wind II*. He also became one of the finalists of Ton de Leeuw International Composition Competition with *Gate of Tears*. From 2007 to 2009, he was the composer-in-residence of the Penang State Symphony Orchestra and Chorus (PESSOC).

Tan is currently pursuing his master's degree in music composition at the University of Missouri – Kansas City, under the tutelage of Chen Yi, James Mobberley, Paul Rudy and Zhou Long. Prior to that, he worked as an IC design engineer at Altera Corporation. He obtained his engineering degree from the University of Michigan, Ann Arbor.