

الجَزَرِيُّ

alJazari's
Ingenious
CLOCKS
for orchestra

Karim Al-Zand
(2024)

Program Note

Al-Jazari's Ingenious Clocks is an evocative time piece, a journey to a vivid world of invention and imagination. It is organized as a sequence of three scenes (played without pause) that mingle together imagery inspired by medieval inventor Ismail Al-Jazari's (1136–1206) magnificent clocks: the elements that drive them (fire, water, air); the kinetic forces they manifest (rhythm, momentum, acceleration); and the embodiment of the world seen in their visual design (animals, people, music).

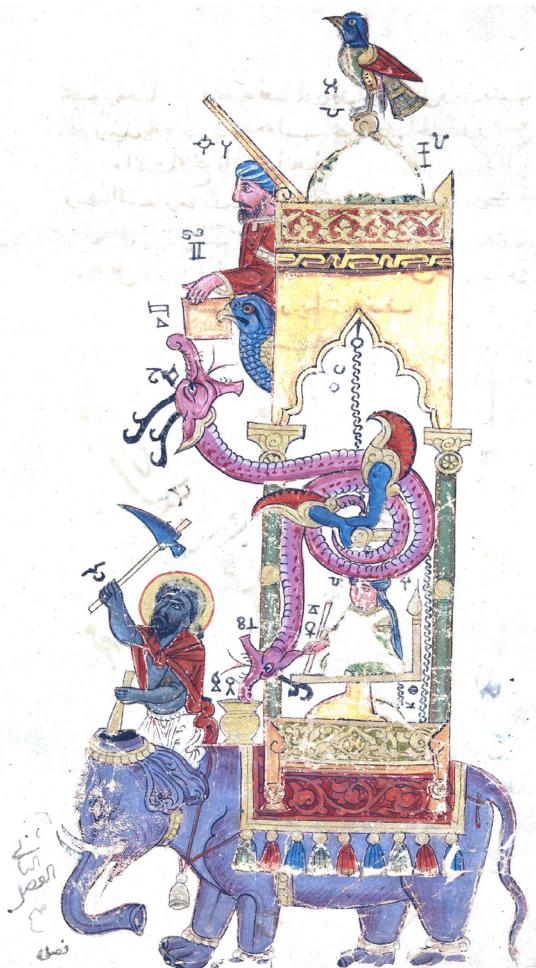
The *candle clock* tells a wafting time. Seconds, minutes, hours drift by, coiling from the candle's wick in thin tendrils of smoke as the flame draws ever higher. As the hour approaches, the wax melts, its trail dripping a memory of time passed. The hands of the *musical clock* are the hands of drummers, who play a rhythmic dance. Together they try to beat time, but time will not succumb! Time can be kept but not saved, its passing marked with increasing intensity, building to an ecstatic climax. The *elephant clock* advances slowly, with a steady and gentle time that never forgets—but neither does it tarry. It moves forward, inexorably, irresistibly. And we all travel on its back, in a long caravan of time, each tolling bell a milestone on our journey to the future.

About Al Jazari

Ismail al-Jazari was a 12th century Islamic polymath: a scholar, inventor, engineer, artist and mathematician. He was born in 1136 in Upper Mesopotamia and served as the chief engineer for the Artuqid dynasty at the Artuklu Palace (located in modern-day Turkey). His remarkable treatise, *The Book of Knowledge of Ingenious Mechanical Devices* (1206) describes fifty machines al-Jazari

crafted to perform various tasks. Coupled with his own colorful illustrations, the book evokes a fairytale world of automated devices: a dancing water fountain, a band of mechanical musicians, a hydraulic “perpetual flute,” a self-cleaning washbasin, and a mechanized “butler” who prepares drinks. But all of the devices were fully operational (and have been re-created in modern times). In his pioneering work we encounter for the first time many of the foundational mechanisms of engineering: the crankshaft, segmental gears, escapement mechanisms, conical valves, advanced pulley rigs, and various mechanical systems of bolts and locks. Known as the “father of robotics” for his revolutionary work in automation, al-Jazari’s devices are fascinating both functionally and aesthetically.

But perhaps his most beautiful and captivating designs are his many mechanical clocks. These include elaborate candle clocks (triggered by melting wax), an astronomical “castle clock,” (including a Zodiac dial), programmable clock of mechanical drummers (who beat out the hours!), a portable “scribe clock” and a giant “elephant clock” (left). These enchanting time machines are captivating to envision, but they are built with technology and a prescience that anticipates our automated modern world.



Instrumentation

3 Flutes

(1. doubles Alto Flute in G)

(2. & 3. double Piccolo)

3 Oboes

(3. doubles English Horn)

3 B♭ Clarinets

(2. doubles E♭ Clarinet)

(3. doubles B♭ Bass Clarinet)

3 Bassoons

(3. doubles Contrabassoon)

4 Horns in F

4 Trumpets in C

2 Tenor Trombones

Bass Trombone

Tuba

Timpani (5 drums)

Percussion (5 players)

Xylophone, Glockenspiel, Vibraphone

Bass Drum, 4 graduated Toms

Bongos, Timbales, Tambourine

Suspended Cymbals, Crash Cymbals, Sizzle Cymbal

Chinese Cymbal, Hi-Hat, Tam-Tam, Triangle

Jam Block (large), large Orchestral Bell: E♭

Darbuka [Doumbek]

Piano/Celeste (5 octave)

Harp

Strings

minimum 10|8|6|6|4

alJazari's Ingenious Clocks

«for orchestra»

Karim Al-Zand
(b. 1970)Quickly; restive, expectantly ca. $\text{♩}=80$ Very Slowly; hypnotic $\text{♩}=84$

Alto Flute (G)
(also Flute 1)

Flute 2
(also Piccolo 1)

Flute 3
(also Piccolo 2)

Oboe 1, 2

Oboe 3
(also English Horn)

B♭ Clarinet 1, 2
(2. also E♭ Clarinet)

B♭ Clarinet 3
(also B♭ Bass Clarinet)

Bassoon 1, 2

Bassoon 3
(also Contrabassoon)

Horn 1, 2

Horn 3, 4

Trumpet (C) 1, 2, 3, 4

Trombone 1, 2

Bass Trombone

Tuba

Timpani
5 drums
(1 piccolo)

SUSPENDED CYMBAL

Vibrphone, Xylophone, Glockenspiel
Cymbals: Suspended, Sizzle, Crash, Chinese,
Tam-Tam, Bass Drum, Timbales, Graduated
Toms, Hi-Hat, Triangle, Tambourine, Jam Block
Orchestral Bell (E), Darbuka (Dounbe)

Vibrphone

Celesta
(also Piano)

Harp

Violin I
div a 4

Violin II
div.

Viola

2 soli
Cello

gli altri

Contrabass

(5)

Alto Fl.

Fl. 2, 3

Ob. 1, 2, 3

Cl. 1, 2

Cl. 3 *pp*

Bsn. 1, 2, 3

Hn. 1, 2

Hn. 3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Perc.

Vibes

Cel.

Hp.

Vln. I

Vln. II

Vla (div in 3)

Vc. (2 soli)

CB

solo expres.

pp

(tr.)

(2 stands, div.)

gloss.

gloss.

(7)

Alto Fl.

Fl. 2, 3

Ob. 1, 2, 3

Cl. 1, 2

Cl. 3

Bsn. 1, 2, 3

Hn. 1, 2

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Perc.

Vibes

Cel.

Hp.

Vln. I

Vln. II

Vla.

Vc. (2 soli)

CB

⑨

Alto Fl.

Fl. 2

Ob. 1, 2, 3

Cl. 1, 2

Cl. 3

Bsn. 1, 2, 3

1, 2

Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Perc.

Vibes

(tr.)

Cel.

Hp.

Vln. I

Vln. II

Vla.

Vc. (2 soli)

CB

poco cresc.

tr.

gliss.

gliss.

A

poco rit. - - - - - poco più mosso $\text{♩}=92$

(11)

Alto Fl.

Fl. 2

Fl. 3

Ob. 1, 2, 3

Cl. 1, 2

poco cresc.

Cl. 3

Bsn. 1, 2

Bsn. 3

pp poco cresc.

1, 2

Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Perc.

Glock.

Vibes

(roll) cresc.

Cel.

Hp.

p

$\text{♩}=92$

with violin I, end on 2nd beat

$\text{♩}=92$

poco cresc.

tutti div. espres., floating delicately ord.

p

$\text{♩}=92$

div. in 2 p

poco cresc.

tutti div. sempre sul tasto

pizz. solo arco

poco cresc.

gli altri div.

poco cresc.

arco

pizz. solo pizz.

CB

(13)



Fl. 1, 2, 3
Ob. 1, 2, 3
Cl. 1, 2
Cl. 3
Bsn. 1, 2
Bsn. 3

Hn.
3, 4
Trpt. 1, 2, 3, 4
Trbn. 1, 2
B. Trbn.
Tba.
Timp.
Perc.
Glock.
Vibes
Cel.
Hpf.
A[#]B^b
A[#]B[#]

Vln. I
Vln. II
Vla.
Vc. div.
CB solo

Musical score for orchestra and percussion. The score consists of three systems of music. The first system (measures 13-14) features woodwind entries (Flute 1, 2, 3; Oboe 1, 2, 3; Clarinet 1, 2; Clarinet 3; Bassoon 1, 2; Bassoon 3) with sustained notes and slurs. The second system (measures 14-15) includes brass and woodwind entries (Horn 1, 2; Horn 3, 4; Trumpet 1, 2, 3, 4; Trombone 1, 2; Bass Trombone; Bassoon; Timpani; Percussion; Glockenspiel; Vibraphone). The third system (measures 15) features string entries (Violin I; Violin II; Cello division; Double Bass solo) with slurs and grace notes. Measure 15 concludes with a dynamic marking *p*.

13

14

15

16

molto allargando - - - - più mosso $\text{♩} = 108$ ($\text{♩} = 38$)

1. FLUTE $\text{♩} = 23$

Fl. 1, 2
Fl. 3
Ob. 1, 2, 3
Cl. 1
Cl. 2
Cl. 3
Bsn. 1, 2
Bsn. 3

poco cresc.
poco cresc.
poco cresc.

1. 2
Hn.
3, 4
Trpt. 1, 2, 3, 4
Trbn. 1, 2
B. Trbn.
Tba.
Timp.
Perc.
Glock.
Vibes
Cel.
Hp.

poco cresc.
1. sord.
3. sord.
2. sord.
4. sord.

$\text{♩} = mp$

 $\text{♩} = unis.$

molto allargando - - - - più mosso $\text{♩} = 108$ ($\text{♩} = 38$)

Vln. I
Vln. II
Vla.
Vc. div.
solo
CB
gli altri

sul IV $\text{♩} = 23$
ord. $\text{♩} = 23$
poco cresc.
poco cresc.
poco cresc.
poco cresc.
poco cresc.

$\text{♩} = mp$

unis.
 $\text{♩} = mp$
 $\text{♩} = mp$

arco
arco
arco
arco
arco
arco

tutti div. $\text{♩} = mp$
pizz.

B poco più mosso $\text{♩} = 116$

(19)

Fl. 1, 2
Fl. 3
Ob. 1, 2
Ob. 3
Cl. 1
Cl. 2
Cl. 3
Bsn. 1, 2
Bsn. 3
1, 2
Hn.
3, 4
Trpt. 1, 2, 3, 4
Trbn. 1, 2
B. Trbn.
Tba.
Timp.
Sizzle Cym.
Glock.
Vibes
Cel.
Hp.

poco più mosso $\text{♩} = 116$

Vln. I
Vln. II
Vla.
(div.)
Vc.
CB
div.

poco più mosso $\text{♩} = 116$

19
20
21

(22)

Fl. 1, 2

Fl. 3

Ob. 1, 2

Ob. 3

Cl. 1, 2

Cl. 3

Bsn. 1, 2

Bsn. 3

1, 2

Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Tim.

Sizzle Cym.

Vibes

Cel.

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

(ord.)

ff

f

mf

pizz.

arco

mf

molto

gliss.

tutti

—9—

poco accel. - - - - più mosso $\text{♩} = 126$ ($\text{♩} = 42$)

(25)

Fl. 1, 2 (1.)

Fl. 3

Ob. 1, 2 (1.)

Ob. 3

Cl. 1, 2 (1.)

Cl. 3

Bsn. 1, 2

Bsn. 3

1, 2 Hn.

3, 4

Trpt. 1, 2, 3, 4 2., 3., 4. harmon mute, stem out
1. (straight mute)

poco f 2. harmon mute; stem out
Trbn. 1, 2

poco f

B. Trbn.

Tba.

Timp.

Sizzle Cym.

Hi-Hat

Crash Cymbals

Cel.

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

(28)

poco accel. - - - - -

2. to PICCOLO

to E[♭] CLARINET

2., 3., 4. straight mutes

f 2. straight mute

f straight mute

f

to PIANO

B♭ F♯ poco f

poco accel. - - - - -

Fl. 1, 2

Fl. 3

Ob. 1, 2

Ob. 3

Cl. 1, 2

Cl. 3

Bsn. 1, 2

Bsn. 3

Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Sizzle Cym.

Hi-Hat

Crash Cymbals

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

28

29

30

più mosso $\text{♩} = 48$ ($\text{♩} = 144$)

$\text{♩} = \text{♩}$ poco accel. - - - - - più mosso $\text{♩} = 50$ ($\text{♩} = 150$)

(31)

Picc. 1
(Fl. 2)

Fl. 1
cresc.

Fl. 3
s cresc. s

Ob. 1
cresc.

Ob. 2
cresc.

Ob. 3
> cresc.

Cl. 1
s cresc. s

E♭ Cl.

Cl. 3

Bsn. 1

Bsn. 2, 3
poco f *cresc.*

1, 2

Hn.

3, 4

Trpt. 1, 2

Trpt. 3, 4
(straight mutes) *poco f* *cresc.*

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Hi-Hat

Glock.

Cel./Pno

Hp.

Vln. I
arco *cresc.*

Vln. II
div. arco *cresc.*

Vla.
arco *cresc.*

Vc.
cresc.

CB
cresc.

PICCOLO

E♭ CLARINET

to B♭ BASS CLARINET

più mosso $\text{♩} = 48$ ($\text{♩} = 144$)

$\text{♩} = \text{♩}$ poco accel. - - - - - più mosso $\text{♩} = 50$ ($\text{♩} = 150$)

div.

div. f.

div. pizz.

f

—12—

35

poco rit. - - -

Picc. 1 (Fl. 2)

Fl. 1 decresc.

Fl. 3 decresc.

Ob. 1 to PICCOLO

Ob. 2 to ENGLISH HORN

Cl. 1

E♭ Cl. decresc.

Bass Cl.

Bsn. 1 decresc.

Bsn. 2

Bsn. 3

1, 2 Hn. (4.) 3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Sus. Cym. 15 mf

Glock.

Cel./Pno

Hp. decresc.

Vln. I unis. tr^b poco rit. - - -

Vln. II unis. arco tr^b mp div. unis. tr^b tr^b div. p tr^b

Vla. unis. arco tr^b decresc. div. pizz. unis. arco tr^b

Vc. pizz.

CB decresc.

C

(38) (poco rit.) - - - subito
più mosso $\text{♩} = 56$

Picc. 1 (Fl. 2)

Picc. 2 (Fl. 3)

Fl. 1

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl. [B♭ BASS CLARINET]

Bsn. 1, 2

Bsn. 3

1, 2 Hn. (3.)

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2 1. cup mute

B. Trbn.

Tba.

Timp.

Tamb. [TAMBOURINE] fingertips on rim

Piano [PIANO]

Hp.

(poco rit.) - - - subito
più mosso $\text{♩} = 56$

Vln. I

Vln. II

Vla.

Vc.

CB

(45) ♩ = ♩ (♩ = 84)

♩ = ♩ poco rit. - - a tempo

Picc. 1 (Fl. 2)
PICCOLO

Picc. 2 (Fl. 3)

Fl. 3

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Bsn. 3

1, 2 Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Sus. Cym.

Xylo.

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

45 46 47 48 49

50

Picc. 1
(Fl. 2)

Picc. 2
(Fl. 3)

Fl. 1

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Bsn. 3

1, 2
Hn.
3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Sus. Cym.

Xylo.

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

50

51

52

53

54

55

D

(56)

$\text{♩} = \text{♩.} (\text{♩.} = 84)$

56 57 58 59 60 61 62 63 64 65

(66)

J = J = 126

Picc. 1 (Fl. 2) Picc. 2 (Fl. 3) Fl. 1 Ob. 1, 2 EH Cl. 1 Eb Cl. Bass Cl. Bsn. 1 Bsn. 2, 3

1, 2 Hn. 3, 4 Trpt. 1, 2, 3, 4 Trbn. 1, 2 B. Trbn. Tba. Timp. Tamb. Xylo. Cel./Pno Hp.

Vln. I Vln. II Vla. Vc. CB

66

67

68

69

70

71

72

73

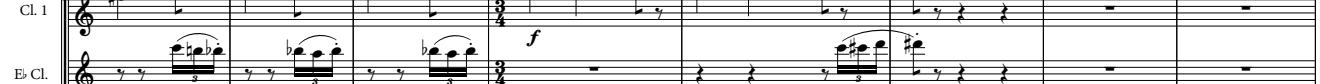
(74)

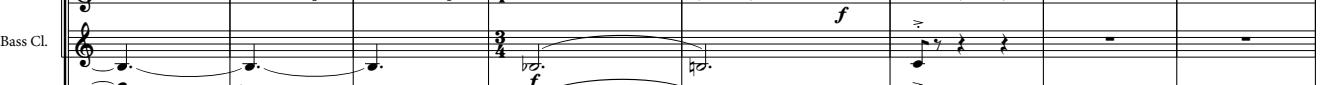
Picc. 1 (Fl. 2) 

Picc. 2 (Fl. 3) 

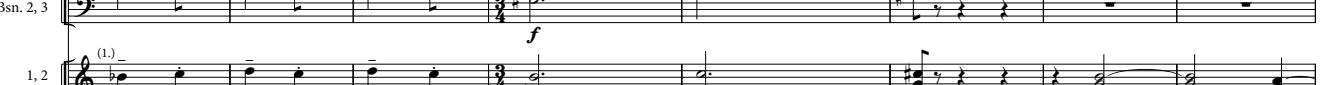
Fl. 3 

Ob. 1, 2 

EH 

Cl. 1 

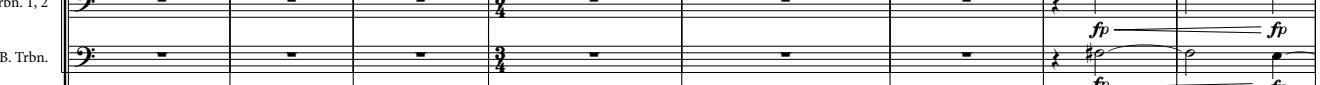
E♭ Cl. 

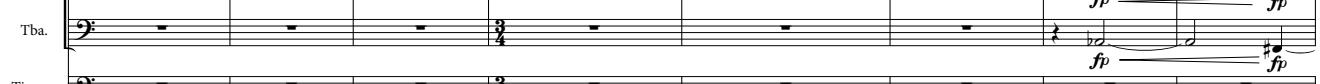
Bass Cl. 

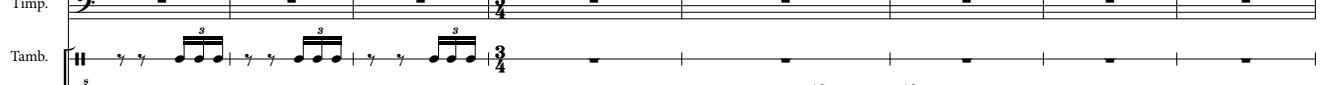
Bsn. 1 

Bsn. 2, 3 

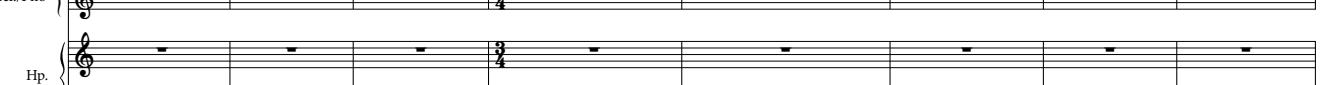
1, 2 

Hn. (4.) 

3, 4 

Trpt. 1, 2 

Trpt. 3, 4 

Trbn. 1, 2 

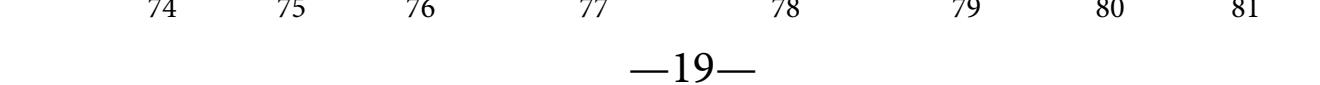
B. Trbn. 

Tba. 

Timpani 

Tamb. 

Xylo. 

Cel./Pno 

Hp. 

Vln. I

Vln. II

Vla.

Vc.

CB

74 75 76 77 78 79 80 81

82

più mosso ♩ =132

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2, 3

Hn. 1, 2

Hn. 3, 4

Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Bass Drum

Crash Cymbals

Cel./Pno

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

82

83

84

85

86

87

88

89

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2, 3

1, 2

Hn.

3, 4

Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Tim.

Bass Drum

Crash Cymbals

Cel./Pno

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

89

90

91

92

93

94

95

E

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Bsn. 3

1, 2
Hn.
3, 4

Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Sus. Cym.
mallets

Glock.

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

95

96

97

98

99

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Cbsn.

1, 2
Hn.
3, 4

(a2)
Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Sus. Cym.

Glock.

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

99

100

101

102

103

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Cbsn.

1, 2

Hn. (a2)

3, 4

Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Sus. Cym.

Glock.

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

accel. - - - -

103 104 105 106 107

108

Picc. 1 (Fl. 2) *(tr.)* *p.* *tr.* *tr.* *tr.* *tr.*

Fl. 1 *p.* *p.* *tr.* *p.*

Fl. 3 *p.* *p.* *p.* *p.*

Ob. 1 *p.* *p.* *p.* *p.*

Ob. 2 *p.* *p.* *p.* *p.*

EH *p.* *p.* *p.* *p.*

Cl. 1 *p.* *p.* *p.* *p.*

E♭ Cl. *p.* *p.* *p.* *p.*

Bass Cl. *p.* *p.* *p.* *p.*

Bsn. 1, 2 *p.* *p.* *p.* *p.*

Cbsn. *p.* *p.* *p.* *p.*

♩ = 152

1, 2 Hn. *p.* *p.* *p.* *p.* *p.* *p.*

3, 4 Hn. *p.* *p.* *p.* *p.* *p.* *p.*

(a2) Trpt. 1, 2 *p.* *p.* *p.* *p.* *p.* *p.*

(a2) Trpt. 3, 4 *p.* *p.* *p.* *p.* *p.* *p.*

Trbn. 1, 2 *p.* *p.* *p.* *p.* *p.* *p.*

B. Trbn. *fp* *ff* *p.* *p.* *p.* *p.*

Tba. *fp* *ff* *p.* *p.* *p.* *p.*

Timp. *p.* *p.* *p.* *p.* *p.* *p.*

Tam-Tam *p.* *p.* *p.* *p.* *TAM-TAM* *p.* *p.* *p.* *p.*

Cr. Cym. *p.* *p.* *p.* *p.* *p.* *p.*

Crash Cymbals *p.* *p.* *p.* *p.* *p.* *p.*

Piano *p.* *p.* *p.* *p.* *p.* *p.*

Hp. *p.* *p.* *p.* *p.* *p.* *p.*

Vln. I *p.* *p.* *p.* *p.* *p.* *p.*

Vln. II *p.* *p.* *p.* *p.* *p.* *p.*

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

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

CB *p.* *p.* *p.* *p.* *p.* *p.*

unis.

ff *ff* *ff* *ff* *ff* *ff*

108

109

110

111

112

113

F

long decresc.

Animated; a vibrant dance ♩ = 108

114

Picc. 1 (Fl. 2)

Fl. 1

Fl. 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Cbsn.

1, 2 Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Chinese Cym.

Bass Drum

Darbuka

Glock.

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

long decresc.

decresc.

p

decresc.

to BASSOON 3.

Tamb. fingertips on rim p

DARBUKA "Tak" "Doun" pp

repeat, gradual crescendo mp

ff ♩ = 108

gliss.

long decresc.

unis. pizz.

div.

unis.

sub. p

decresc.

p

decresc.

p

decresc.

p

½ section

decresc.

solo

(89)

114

115

116

117

118

119

120

121

122

123

Picc. 1
(Fl. 2)

Fl. 1, 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Bsn. 3

Hn. 1, 2

Hn. 3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Crash Cymbals

Cr. Cym.

Tamb.

Darbuka

piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB div.

Maqsum: tambourine & darbuka may embellish modestly as it goes on, ad. lib., and should crescendo gradually

thumb roll on rim

heel (finger taps)

damped near the tuning peg (but still resonant and pitched)

mf *p* *220* →

pizz.

sub. f

p *pizz.*

sub. f

pizz. *gliss.*

tutti *div.* *pizz.* *f* *prominently*

re-articulate

re-articulate

bouncing bow *col legno*

unis.

col legno

col legno div. *unis.*

div. *unis.*

div. *unis.*

col legno *p*

col legno

pizz. *gliss.*

re-articulate

prominently

gliss.

re-articulate

bouncing bow *col legno*

123

124

125

126

127

128

129

130

131

Picc. 1
(Fl. 2)

Fl. 1, 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Bsn. 3

Hn. 1, 2

Hn. 3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Vibes

Piano

(S)

Hp.

pizz. div. col legno unis. div. unis. pizz. div. col legno unis.

Vln. I

Vln. II

pizz. div. col legno unis. div. unis. pizz. div. col legno unis.

Vla.

Vc.

CB

pizz. col legno unis. col legno > pizz. col legno >

bouncing bow

p

131

132

133

134

135

136

Picc. 1 (Fl. 2)

Fl. 1, 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Bsn. 3

1, 2 Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Vibes

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

p but swell on the long notes

1. soli

p but swell on the long notes
solí

p but swell on the long notes

[to B: CLARINET 3.]

1. (solo)

p

1, 2 harmon mutes; stem out

p

div. *unis.* *pizz.* *div.* *unis.* all accents very pronounced

sempr. pizz.
unis. *div.*

all accents very pronounced
sempr. *div.* *unis.* *div.*

pizz. *(dampened)*

unis. *pizz.* *(dampened)*

143

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Cl. 3

Bsn. 1, 2

Bsn. 3

1, 2

Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Bass Drum

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

sord.

p

gloss.

2. cup mute

B. Drm. muted

p

unis.

div.

unis.

div.

unis.

div.

(p)

(p)

(p)

all accents very pronounced

(p)

143

144

145

146

147

148

149

Picc. 1
(Fl. 2)

Fl. 1, 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Cl. 3

Bsn. 1

Bsn. 2

Bsn. 3

3. BASSOON

Hn.

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Bass Drum

Sus. Cym.

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

149

150

151

152

153

154

155

156

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Cl. 3

Bsn. 1, 2

Bsn. 3

1, 2

Hn.

3, 4

Trpt. 1, 2

cup mutes

p

Trpt. 3, 4

cup mutes

p

1. cup mute

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Sus. Cym.

Xylo.

Piano

p

Hp.

Vln. I

arco

pizz.

arco

pizz.

arco

pizz.

arco

Vln. II

arco

pizz.

arco

pizz.

arco

pizz.

arco

Vla.

(pizz.)

Vc.

CB

157

158

Picc. 1
(Fl. 2)

Fl. 1, 3

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Cl. 3

Bsn. 1, 2

Bsn. 3

1, 2

Hn.

3, 4

Trpt. 1, 2

molto cresc.

Trpt. 3, 4

(1.)

Trbn. 1, 2

³ molto cresc.

B. Trbn.

Tba.

Timp.

Tamb.

solo ad lib. in 4

Darbuka

Bass Drum

[B. Drm.]

Cel./Pno

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

Picc. 1
(Fl. 2)

Fl. 1, 3

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Cl. 3

Bsn. 1, 2

Bsn. 3

1, 2
Hn.
(4.)

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Tim.

Tamb.

Darbuka

Crash Cymbals

Cel./Pno

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

164

165

166

167

168

169

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

[to B♭ BASS CLARINET]

Cl. 3

Bsn. 1, 2

Bsn. 3

1, 2

Hn.

3, 4

Trpt. 1, 2

3, 4, straight mutes

Trpt. 3, 4

p

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

p

Glock.

[CELESTA]

Cel.

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

H

174

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1, 2
(1.)

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Bsn. 3

1, 2
Hn.
(3.)
3, 4
(3., 4.)

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Hi-Hat

Glock.

Cel.

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

174

175

176

177

178

179

Picc. 1
(Fl. 2)

Fl. 1, 3

(2.)
Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Bsn. 3

1, 2

Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Hi-Hat

Cel./Pno

Hp.

Vln. I

Vln. II

Vla.

Vc. div.

(unis.)

CB

179

180

181

182

183

184

185

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2, 3

1, 2

Hn.

3, 4

Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Sus. Cym.

Xylo.

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

to PICCOLO

3. to CONTRABASSOON

open

mf

straight mutes

mf

2. straight mute

mf

straight mute

mf

stick

mf

PIANO *mf*

f

gliss.

gliss.

II

III

f

gliss.

unis.

arcu

f

gliss.

gliss.

185

186

187

Fl. 1, 2, 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1

Bsn. 2

Cbsn.

BASS CLARINET

1, 2

Hn.

3, 4

molto ³ cresc.

Trpt. 1, 2

molto ³ cresc.

Trpt. 3, 4

molto ³ cresc.

(2.)

Trbn. 1, 2

s molto cresc.

B. Trbn.

Tba.

188

189

190

191

192

Timp.

Tamb.

Darbuka

Bass Drum

Piano

poco f

Hp.

Vln. I

(unis.)

Vln. II

(unis.)

Vla.

(unis.)

Vc.

(unis.)

CB

solos ad lib. in 4

48

poco f

poco f

poco f

poco f

poco f

gliss.

gliss.

193

Picc. 1
(Fl. 2)

Fl. 2, 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1

Bsn. 2

Cbsn.

CONTRABASSOON

1, 2

Hn.

3, 4

Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Bass Drum

Sus. Cym.

Sus. Cym.

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

193

194

195

196

197

198

Picc. 1
(Fl. 2)

Picc. 2
(Fl. 3)

Fl. 1

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Cbsn.

1. 2.
Hn.
3. 4.

Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Timbales

on the shell

Piano

Vln. I

Vln. II

Vla.

Vc.

CB

198

199

200

201

202

(203)

Picc. 1
(Fl. 2)
Picc. 2
(Fl. 3)
Fl. 1
Ob. 1
Ob. 2
EH
Cl. 1
Eb Cl.
Bass Cl.
Bsn. 1, 2
Cbsn.

(1.)
1, 2
Hn.
(3.)
3, 4
Trpt. 1, 2
Trpt. 3, 4
Trbn. 1, 2
B. Trbn.
Tba.
Timp.
Tamb.
Darbuka
Timbales
Xylo.
Piano

Vln. I
arco pizz.
arco pizz.
arco pizz.
arco
Vln. II
arco pizz.
arco pizz.
arco
Vla.
unis. div.
div.
Vc.
pizz. arco
pizz. arco
pizz. arco
unis.
CB

203

204

205

206

207

Picc. 1
(Fl. 2)

Picc. 2
(Fl. 3)

Fl. 1

Ob. 1

Ob. 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Cbsn.

1, 2
Hn.
3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Xylo.

Piano

Vln. I

Vln. II

Vla.

Vc.

CB

207

208

209

210

I

211

Picc. 1
(Fl. 2)

Picc. 2
(Fl. 3)

Fl. 1

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Cbsn.

1, 2
Hn.
3, 4

Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Bass Drum

Timbales

Xylo.

Piano

Vln. I

Vln. II

Vla.

Vc.

CB

211

212

213

214

215

Musical score for orchestra and piano, page 215.

Measure 215 (Measures 215-219):

- Picc. 1, 2 (Fl. 2, 3) play eighth-note patterns.
- Fl. 1, Ob. 1, 2, EH, Cl. 1, Eb. Cl., Bass Cl. play eighth-note patterns.
- Bsn. 1, 2 play eighth-note patterns.
- Cbsn. (a2) plays eighth-note patterns.
- Hn. 1, 2 and Hn. 3, 4 play eighth-note patterns.
- Trpt. 1, 2 and Trpt. 3, 4 play eighth-note patterns.
- Trbn. 1, 2 and B. Trbn. play eighth-note patterns.
- Tba. plays eighth-note patterns.
- Timp. plays eighth-note patterns.
- Crash Cymbals (Cr. Cym.) and Bass Drum play eighth-note patterns.
- Toms play eighth-note patterns.
- Timbales play eighth-note patterns.
- Piano plays eighth-note patterns.
- Vln. I div. (Violin I) play eighth-note patterns.
- Vln. II (Violin II) play eighth-note patterns.
- Vla. (Viola) play eighth-note patterns.
- Vc. div. (Cello) play eighth-note patterns.
- CB (Double Bass) play eighth-note patterns.

Measure 215 ends with *3. to FLUTE*.

Measure 216 begins with *molto cresc.*

Measure 217 begins with *molto cresc.*

Measure 218 begins with *molto cresc.*

Measure 219 begins with *molto cresc.*

Measure 219 ends with *(different drum)*.

Measure 219 ends with *f*.

220

Picc. 1 (Fl. 2) *f* cresc. 3. FLUTE *ff*

Fl. 1, 3 cresc.

Ob. 1, 2 cresc.

EH cresc.

Cl. 1 cresc.

E♭ Cl. cresc.

Bass Cl. cresc.

Bsn. 1, 2 cresc.

Cbsn. cresc.

1, 2 Hn. cresc. 3, 4 cresc.

Trpt. 1, 2, 3, 4 cresc.

Trbn. 1, 2 (a2) cresc.

B. Trbn. cresc.

Tba. cresc.

Timp. cresc. section soli!

Jam Block *ff* JAM BLOCK

Crash Cymbals

Bass Drum cresc. *ff*

Toms *f* cresc. *ff*

Timbales cresc. *ff* ad lib (in *s*) *f*

Piano cresc. *ff*

Vln. I cresc. *ff*

Vln. II cresc. *ff*

Vla. cresc. *ff*

Vc. cresc. *ff*

CB cresc. *ff*

226

molto pesante
(but in time)

Picc. 1
(Fl. 2)

Fl. 1, 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Cbsn.

Hn. 1, 2

Hn. 3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Tim. Timp.

Jam Block

Crash Cymbals

Bass Drum

Toms

Timbales

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

226

227

228

229

230

231

232

233

Picc. 1
(Fl. 2)

Fl. 1, 3

Ob. 1, 2

Ob. 3

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Bsn. 3

Hn. 1, 2

Hn. 3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Jam Block

cresc.

Crash Cymbals

Bass Drum

Toms

cresc.

Timbales

cresc.

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

233

234

235

236

237

238

239

240

Picc. 1
(Fl. 2)

Fl. 1, 3

Ob. 1, 2

Ob. 3

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Cbsn.

Hn. 1, 2

Hn. 3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Timbales

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

240

241

242

243

244

245

246

247

K

248

colla parte

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1

Ob. 2

3. OBOE

Ob. 3

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2

Cbsn.

1, 2

Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Timbales

Vibes

Piano

Hp.

colla parte

sol. colla parte

C4

solo

colla parte

suddenly quickly $\text{♩} = 112$

colla parte [to FLUTE 2.]

pp

div. in 4 pizz. \flat

in 2 arco \flat

div. in 4 pizz. \flat

p

cresc.

dolce

sub. pp

248

249

250

251

252

253

254

255

suddenly quickly $\text{d} = 112$

Fl. 1
Fl. 2
Fl. 3
Ob. 1
Ob. 2
Ob. 3
Cl. 1
Eb Cl.
Bass Cl.
Bsn. 1, 2
Cbsn.

1, 2
Hn.
3, 4
Trpt. 1, 2, 3, 4
Trbn. 1, 2
B. Trbn.
Tba.
Timp.
Tamb.
Vibes
Piano
Hp.

Vln. I
Vln. II
Vla.
solo Vc.
gli altri
CB

255

256

257

258

259

260

261

L

262

colla parte

[1. to ALTO FLUTE]

Extremely Slowly; with a serene tranquility $\text{♩} = 58$
(but felt in an expansive 2)

Fl. 1, 2
Fl. 3
Ob. 1, 2
Ob. 3
Cl. 1
E♭ Cl.
Bass Cl.
Bsn. 1, 2
Cbsn.
1, 2
Hn.
3, 4
Trpt. 1, 2, 3, 4
Trbn. 1, 2
B. Trbn.
Tba.
Timp.
Tam-Tam
Bass Drum
Vibes
Piano
Hpf.

Extremely Slowly; with a serene tranquility $\text{♩} = 58$
(but felt in an expansive 2)

colla parte
in 2
arco
Vln. I
in 2
pp
Vln. II
dolce
pp
solo
Vla.
gli altri
Vc.
Cb

unis. ♩
unis. ♩
sul IV ♩
take time
 ♩
div.
 ♩
tutti div.
unis. ♩
div.
4 soli
arco ♩
 ♩

262 263 264 265 266 267 268

269

[ALTO FLUTE] solo

to FLUTE 1.

Alto Fl. *pp* *p*

Fl. 2, 3

Ob. 1 *soli* *mf* *s* *sim.* *s*

Ob. 2 *soli* *mf* *s* *sim.* *s*

Ob. 3 *mf* *s* *sim.* *s*

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2 *p* *poco* *sim.*

Cbsn.

1, 2

Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2 *bucket mutes* *very slow gliss.* *b* *very slow gliss.*

B. Trbn. *bucket mute* *pp* *b* *very slow gliss.*

Tba. *pp*

Timp.

Tam-Tam *p*

Bass Drum

Vibes

Piano *p* *poco* *bd.* *sim.* *bd.* *bd.*

Hp. *S'--1* *S'--1* *S'--1* *S'--1*

Vln. I

Vln. II

Vla. *div.* *p*

Vc. *p* *espres.* *tutti div.* *pizz./arc.* *mp*

CB *p*

269

270

271

272

273

274

275

Fl. 1, 2

Fl. 3

Ob. 1

Ob. 2

Ob. 3

Cl. 1

E♭ Cl.

Bass Cl.

(2.)

Bsn. 1, 2

Cbsn.

1, 2

Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tam-Tam

Bass Drum

Glock.

Vibes

Piano

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

p *poco* *sim.*

2. sord.

3., 4. sord. p

p

l.v.

mp

bells *s*

let all notes ring

p

pp *p*

unis.

div. pizz.

275 276 277 278 279

280

Fl. 1, 2
Fl. 3
Ob. 1, 2, 3
Cl. 1
E♭ Cl.
Bass Cl.
Bsn. 1, 2 (1.)
Cbsn.
1, 2 Hn.
3, 4
Trpt. 1, 2
Trpt. 3, 4
Trbn. 1, 2 gliss.
B. Trbn.
Tba.
Timpani
Tam-Tam
Bass Drum
Glock.
Vibes
Chimes
Piano {
Hpf. {
Vln. I
Vln. II
Vla.
Vc.
CB.

280 281 282 283 284

M

molto! rit. - - - - Quickly; restive, expectantly ca. $\text{♩} = 80$

285

FLUTE *poco cresc.* *breathy tone* *pp*

Fl. 1
Fl. 2
Fl. 3
Ob. 1
Ob. 2
Ob. 3
Cl. 1
E♭ Cl.
Bass Cl.
Bsn. 1, 2
Cbsn.

Hn. 1, 2
(3., 4. sord.)
Hn. 3, 4
Trpt. 1, 2, 3, 4
Trbn. 1, 2
B. Trbn.
Tba.
Timpani
Tam-Tam *p* *brushes: scrape* *Bdg.*
Sus. Cym. *f* *p* *mp*
Vibes
Chimes
Cel.
Hp. *D: + + + +* *mp* *gliss.* *15°* *p*
Vln. I
Vln. II
Vla.
Vc.
Cb. div.

molto! rit. - - - - Quickly; restive, expectantly ca. $\text{♩} = 80$

ppp *ppp* *ppp* *ppp* *pp* *pizz. pp*

delicately