

الْجَزَرِيّ

alJazari's
Ingenious
LOCKS
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).

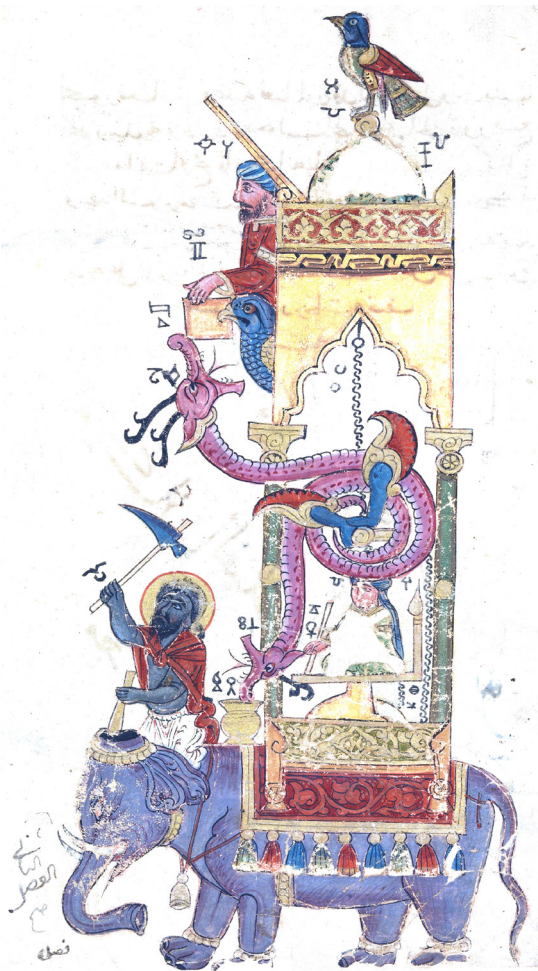
The *candle clock* tells a wafting time. Seconds, minutes, hours drift by, coiling from the candle's wick in thin tendrils of smoke as the flame draws ever higher. As the hour approaches, the wax melts, its trail dripping a memory of time passed. The hands of the *musical clock* are the hands of drummers, 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 $\flat$ Clarinets

(2. doubles E $\flat$ Clarinet)

(3. doubles B $\flat$ 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 $\flat$

Darbuka [Doumbek]

Piano/Celeste (5 octave)

Harp

Strings

minimum 10|8|6|4

Cal Jazari's Ingenious Clocks

« for orchestra »

Karim Al-Zand
(b. 1970)

Quickly; restive, expectantly ca. ♩ = 80



Very Slowly; hypnotic ♩=84

The image shows a page from a musical score, likely for a symphony or concert band. It includes staves for various instruments and sections:

- 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)**
- Percussion (5 players)**: Vibraphone, Xylophone, Glockenspiel, Cymbals (Suspended, Sizzle, Crash), Chinese, Tam-Tam, Bass Drum, Tom-toms, 4 Graduated Toms, Hi-Hat, Triangle, Tambourine, Jam Block, Orchestral Bell (E♭), Darbuka (Dumtek).
- Celesta (also Piano)**
- Harp**
- Violin I div a 4**
- Violin II div.**
- Viola**
- 2 soli Cello**
- gli altri**
- Contrabass**

The score includes various musical notations, dynamics (e.g., *p*, *f*, *mp*, *pp*), and performance instructions. Key markings include:

- "breathy tone (almost no pitch)"
- "decresc."
- "now mallets"
- "bisbigl."
- "Quickly; restive, expectantly ca. ♩ = 80"
- "Very Slowly; hypnotic ♩ = 84"
- "sul tasto V"
- "flickering sul tasto V"
- "2 stands div."
- "div. in 3 arco"
- "arco p"
- "pizz."
- "gliss."
- "(slow gliss.)"

The page is numbered 1 through 4 at the bottom, corresponding to the measures shown.

5

Alto Fl.

Fl. 2, 3

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

Cel.

Hp.

Vln. I

Vln. II

Vla
(div in 3)

Vc.
(2 soli)

CB

pp

sf

solo espres.

gliss.

5

6

7

Alto Fl.

Fl. 2, 3

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

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

Cel.

Hp.

Vln. I

Vln. II

Vla.

Vc. (2 soli)

CB

poco cresc.

gliss.

9

10

A

poco rit. ----- poco più mosso ♩=92

11

Alto Fl. *cresc.* *p* *mp* (to FLUTE)

Fl. 2 *p*

Fl. 3 *p*

Ob. 1, 2, 3

Cl. 1, 2 *poco cresc.* *p*

Cl. 3 *p*

Bsn. 1, 2 *p*

Bsn. 3 *pp poco cresc.* *p*

1, 2 *1. sord.*

Hn. 3, 4 *3. sord. pp*

Trpt. 1, 2, 3, 4 *pp*

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Perc.

Glock.

Vibes (roll) *cresc.* *p*

Cel. *p* *mp* *8va*

Hp. *E♭ 1 1 1 1 1* *mp* *prominently* *with violin I, end on 2nd beat*

poco rit. ----- poco più mosso ♩=92

Vln. I *poco cresc.* *p* *tutti div. espres., floating delicately* *poco più*

Vln. II *div. in 2* *poco cresc.* *p* *tutti div. sempre sul tasto*

Vla. *poco cresc.* *p*

Vc. solo *solo* *arco* *p*

Vc. gli altri div. *pizz.* *(arco)* *poco cresc.* *p*

CB *solo* *pizz.* *p*

11

12

△ □ △ △ □ △ ♪ = ♪ △ □ □

15

16

18

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.

Timp.

Sizzle Cym.

Vibes

Cel.

Hp.

Vln. I

Vln. II

Vla.

Vc.

CB

(ord.)

fl.

mf

f

gliss.

pizz.

arco

molto

tutti

B♭ F#

22

23

24

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

[illegible]

poco rit. - - - -

(35)

Picc. 1
(Fl. 2)
FL. 1
decresc.
FL. 3
decresc.
Ob. 1
Ob. 2
to PICCOLO
Ob. 3
to ENGLISH HORN
Cl. 1
Eb Cl.
decresc.
Bass Cl.
Bsn. 1
p
decresc.
Bsn. 2
p
Bsn. 3
p

1, 2
Hn.
(4.)
3, 4
p
Trpt. 1, 2, 3, 4
p
Trbn. 1, 2
B. Trbn.
Tba.
Timp.
Sus. Cym.
mf
mp
p
Glock.
Cel./Pno
Hp.
decresc.
Vln. I
unis. arco tr
mp
div. pizz.
Vln. II
mp
div. pizz.
Vla.
decresc.
unis. arco tr
pizz.
Vc.
pizz.
CB
decresc.

poco rit.



(38) (poco rit.) - - - subito
più mosso ♩ = 56

Score for measures 38 to 44, featuring various instruments and their parts.

Woodwinds:

- 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

Brass:

- 1, 2
- Hn. (3.)
- 3, 4
- Trpt. 1, 2, 3, 4
- Trbn. 1, 2
- B. Trbn.
- Tba.
- Timp.

Percussion:

- Tamb. (TAMBOURINE) fingertips on rim

Keyboard:

- Piano
- Hp.

Strings:

- Vln. I
- Vln. II
- Vla.
- Vc.
- CB

Measure numbers: 38, 39, 40, 41, 42, 43, 44

(45) ♩ = ♩ (♩ = 84)

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

Hn.
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

f

poco rit. - - - a tempo

D: C: B: G:

45 46 47 48 49

⑤⑥ $\overset{\sim}{\bullet} = \overset{\sim}{\bullet} \cdot (\overset{\sim}{\bullet} \cdot = 84)$

[illegible]

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. 3, 4

Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Xylo.

Cel./Pno

Hp.

Vln. I

Vln. II

Vla.

Vcl.

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
 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.

3. FLUTE
 a3
 a2 open
 f open
 mp cresc.
 Cr. Cym.

più mosso ♩ = 132
 molto marcato
 molto marcato
 molto marcato
 vigorous
 vigorous

82 83 84 85 86 87 88

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.
 Timp.
 Bass Drum
 Crash Cymbals
 Cel./Pno
 Hp.
 Vln. I
 Vln. II
 Vla.
 Vc.
 CB

89 90 91 92 93 94

This is a page from a musical score, likely for a symphony. The score is written in 4/4 time and includes dynamic markings like *ff* and *f*. The instruments listed on the left are:

- 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.
- Glock.
- Hp.
- Vln. I
- Vln. II
- Vla.
- Vc.
- CB

The score is divided into measures, with some measures containing multiple staves for different instruments. The notation includes various musical symbols such as notes, rests, and dynamic markings. The page is numbered 100 at the bottom right.

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
Hn.

Trpt. 1, 2

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Sus. Cym.

Glock.

Hp.

C♯ A♯

C♯ A♯

Vln. I

Vln. II

Vla.

Vc.

CB

accel. - - - - -

107

[illegible]

123

123

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
 (S⁹)
 Hp.
 Vln. I
 Vln. II
 Vla.
 Vc.
 CB
 div.

(solo) hard mallets
 dead strokes
mf prominently
f prominently
pizz. *div.* *col legno unis.* *div.* *unis.* *pizz.* *div.* *col legno unis.*
pizz. *div.* *col legno unis.* *div.* *unis.* *pizz.* *div.* *col legno unis.*
pizz. *col legno* *pizz.* *col legno*
col legno *bouncing bow* *p*

A² E² F² A² E² F²

137

G

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

soli
p but swell on the long notes
 1. soli
p but swell on the long notes
 soli
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
 sempre pizz.
 div. unis. div. unis. pizz. div. sempre all accents very pronounced
 pizz. unis. div. unis. div.
 all accents very pronounced
 sempre div. unis. div.
 pizz. (dampened)
 unis. pizz. (dampened)

(G⁹)
 A♭—
 E♭—
 F♯—
 A♭—

137

138

139

140

141

142

143

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.

sord.

2. cup mute

B. Drm. muted

all accents very pronounced

143

144

145

146

147

148

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. 1, 2
 Hn. 3, 4
 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

158

This page of a musical score is divided into two systems. The top system includes the following instruments and parts:

- Picc. 1 (Fl. 2)
- Fl. 1, 3
- Ob. 1
- Ob. 2
- EH
- Cl. 1
- E♭ Cl.
- Cl. 3
- Bsn. 1, 2
- Bsn. 3

The bottom system includes:

- 1, 2
- Hn. 3, 4
- Trpt. 1, 2
- Trpt. 3, 4
- Trbn. 1, 2
- B. Trbn.
- Tba.
- Timp.
- Tamb.
- Darbuka
- Bass Drum
- Cel./Pno
- Hp.
- Vln. I
- Vln. II
- Vla.
- Vc.
- CB

The score features various musical notations, including dynamics (e.g., *mf*, *f*, *molto cresc.*), articulation (e.g., *arco*, *pizz.*, *gliss.*), and performance instructions (e.g., *solo ad lib. in 4*, *3. B. CLARINET*). The time signature is 3/4, and the key signature has one sharp (F#).

164

(169)

Picc. 1
(Fl. 2)

Fl. 1

Fl. 3

Ob. 1, 2

EH

Cl. 1

E♭ Cl.

Cl. 3
[to B♭ BASS CLARINET]

Bsn. 1, 2
(a2)

Bsn. 3

Hr. 1, 2
1. gliss. O (with hand)
3. gliss. O (with hand)

Hr. 3, 4

Trpt. 1, 2
3, 4. straight mutes

Trpt. 3, 4

Trbn. 1, 2

B. Trbn.

Tba.

Timp.

Tamb.

Darbuka

Glock.
CELESTA

Cel.

Hp.

Vln. I
pizz.
III II IV III
div. unis.

Vln. II
pizz.
III II
div. gliss. mf p

Vla.
pizz.
div. unis.

Vc.
pizz.
div. unis. arco

CB

174

H

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 (1.)
 Hn. (3.)
 3, 4 (3., 4.)
 Trpt. 1, 2, 3, 4 (4.)
 Trbn. 1, 2
 B. Trbn.
 Tba.
 Timp.
 Tamb.
 Darbuka
 Hi-Hat
 Glock.
 Ccl.
 Hp.
 Vln. I
 Vln. II
 Vla.
 Vc.
 CB

1. harmon mute; stem out
 not too loose
 to PIANO
 unis. arco
 unis. arco
 unis. pizz.
 pizz. arco

174 175 176 177 178

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
 Hi-Hat
 Cel./Pno
 Hp.
 Vln. I
 Vln. II
 Vla.
 Vc. div.
 CB

179 180 181 182 183 184

Picc. 1 (Fl. 2)
 Fl. 1
 Fl. 3
 Ob. 1, 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.
 Tamb.
 Darbuka
 Sus. Cym.
 Xylo.
 Piano
 Hp.
 Vln. I
 Vln. II
 Vla.
 Vc.
 CB

3. to CONTRABASSOON
 open
 mf
 straight mutes
 2. straight mute
 straight mute
 Sus. Cym.
 stick
 PIANO
 unis. arco
 gliss.
 (unis.)
 gliss.
 to PICCOLO

185 186 187

[illegible]

Picc. 1 (Fl. 2)
 Fl. 2, 3
 Ob. 1, 2
 EH
 Cl. 1
 Eb Cl.
 Bass Cl.
 Bsn. 1
 Bsn. 2
 Cbsn.
 1, 2
 Hn. 3, 4
 Trpt. 1, 2
 Trpt. 3, 4
 Trbn. 1, 2
 B. Trbn.
 Tba.
 Timp.
 Tamb.
 Darbuka
 Bass Drum
 Sus. Cym.
 Hp.
 Vln. I
 Vln. II
 Vla.
 Vc.
 CB

[CONTRABASSOON]
 mf
 open
 poco f
 open
 poco f
 Sus. Cym.
 f

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, 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
 Vln. II
 Vla.
 Vc.
 CB

(1.)
 (3.)
 1.
 15th
 f
 sf
 arco
 pizz.
 unis.
 div.
 pizz.
 arco
 unis.
 div.
 pizz.
 arco
 unis.
 div.

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

The score is for measures 207 through 210. The key signature has one sharp (F#). The time signature changes from 4/4 to 3/4 at measure 208 and back to 4/4 at measure 209. The woodwinds and strings have various melodic and harmonic parts. The piano part features a complex texture with multiple layers of chords and arpeggios, marked with *f* and *15°*. The percussion section includes a variety of rhythmic patterns. The brass section provides harmonic support and melodic lines. The string section has a mix of sustained notes and moving lines.

207

208

209

210

211

I

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

molto pesante
(but in time)

Picc. 1 (Fl. 2)
 Fl. 1, 3
 Ob. 1, 2
 EH
 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.
 Jam Block
 Crash Cymbals
 Bass Drum
 Toms
 Timbales
 Piano
 Hp.
 Vln. I
 Vln. II
 Vla.
 Vc.
 CB

226 227 228 229 230 231 232

c. 1
. 2)

239

c. 1
. 2)

—49—



248

colla parte

suddenly quickly $\text{♩} = 112$ colla parte [to FLUTE 2.]

Score for measures 248 to 254, featuring a large ensemble of instruments and a soloist.

Measures 248-254:

- 248:** Picc. 1 (Fl. 2) enters with a melody. Fl. 1, Fl. 3, Ob. 1, Ob. 2, Ob. 3, Cl. 1, E♭ Cl., Bass Cl., Bsn. 1, 2, Cbsn., Hn. 1, 2, 3, 4, Trpt. 1, 2, 3, 4, Trbn. 1, 2, B. Trbn., Tba., Timp., Tamb., Darbuka, Timbales, Vibes, Piano, Hp. (solo, colla parte), Vln. I, Vln. II, Vla., Vc. (solo), CB.
- 249:** Picc. 1 (Fl. 2) continues. Fl. 1, Fl. 3, Ob. 1, Ob. 2, Ob. 3, Cl. 1, E♭ Cl., Bass Cl., Bsn. 1, 2, Cbsn., Hn. 1, 2, 3, 4, Trpt. 1, 2, 3, 4, Trbn. 1, 2, B. Trbn., Tba., Timp., Tamb., Darbuka, Timbales, Vibes, Piano, Hp. (solo, colla parte), Vln. I, Vln. II, Vla., Vc. (solo), CB.
- 250:** Picc. 1 (Fl. 2) continues. Fl. 1, Fl. 3, Ob. 1, Ob. 2, Ob. 3, Cl. 1, E♭ Cl., Bass Cl., Bsn. 1, 2, Cbsn., Hn. 1, 2, 3, 4, Trpt. 1, 2, 3, 4, Trbn. 1, 2, B. Trbn., Tba., Timp., Tamb., Darbuka, Timbales, Vibes, Piano, Hp. (solo, colla parte), Vln. I, Vln. II, Vla., Vc. (solo), CB.
- 251:** Picc. 1 (Fl. 2) continues. Fl. 1, Fl. 3, Ob. 1, Ob. 2, Ob. 3, Cl. 1, E♭ Cl., Bass Cl., Bsn. 1, 2, Cbsn., Hn. 1, 2, 3, 4, Trpt. 1, 2, 3, 4, Trbn. 1, 2, B. Trbn., Tba., Timp., Tamb., Darbuka, Timbales, Vibes, Piano, Hp. (solo, colla parte), Vln. I, Vln. II, Vla., Vc. (solo), CB.
- 252:** Picc. 1 (Fl. 2) continues. Fl. 1, Fl. 3, Ob. 1, Ob. 2, Ob. 3, Cl. 1, E♭ Cl., Bass Cl., Bsn. 1, 2, Cbsn., Hn. 1, 2, 3, 4, Trpt. 1, 2, 3, 4, Trbn. 1, 2, B. Trbn., Tba., Timp., Tamb., Darbuka, Timbales, Vibes, Piano, Hp. (solo, colla parte), Vln. I, Vln. II, Vla., Vc. (solo), CB.
- 253:** Picc. 1 (Fl. 2) continues. Fl. 1, Fl. 3, Ob. 1, Ob. 2, Ob. 3, Cl. 1, E♭ Cl., Bass Cl., Bsn. 1, 2, Cbsn., Hn. 1, 2, 3, 4, Trpt. 1, 2, 3, 4, Trbn. 1, 2, B. Trbn., Tba., Timp., Tamb., Darbuka, Timbales, Vibes, Piano, Hp. (solo, colla parte), Vln. I, Vln. II, Vla., Vc. (solo), CB.
- 254:** Picc. 1 (Fl. 2) continues. Fl. 1, Fl. 3, Ob. 1, Ob. 2, Ob. 3, Cl. 1, E♭ Cl., Bass Cl., Bsn. 1, 2, Cbsn., Hn. 1, 2, 3, 4, Trpt. 1, 2, 3, 4, Trbn. 1, 2, B. Trbn., Tba., Timp., Tamb., Darbuka, Timbales, Vibes, Piano, Hp. (solo, colla parte), Vln. I, Vln. II, Vla., Vc. (solo), CB.

Measure 254: Picc. 1 (Fl. 2) continues. Fl. 1, Fl. 3, Ob. 1, Ob. 2, Ob. 3, Cl. 1, E♭ Cl., Bass Cl., Bsn. 1, 2, Cbsn., Hn. 1, 2, 3, 4, Trpt. 1, 2, 3, 4, Trbn. 1, 2, B. Trbn., Tba., Timp., Tamb., Darbuka, Timbales, Vibes, Piano, Hp. (solo, colla parte), Vln. I, Vln. II, Vla., Vc. (solo), CB.

suddenly quickly $\text{♩} = 112$

—51—

Extremely Slowly; with a serene tranquility ♩ = 58
(but felt in an expansive 2)

1. to ALTO FLUTE

—52—

Alto Fl. ALTO FLUTE solo to FLUTE 1.

Fl. 2, 3

Ob. 1 soli

Ob. 2 soli

Ob. 3 soli

Cl. 1

E♭ Cl.

Bass Cl.

Bsn. 1, 2 2.

Cbsn.

1, 2

Hn.

3, 4

Trpt. 1, 2, 3, 4

Trbn. 1, 2 bucket mutes very slow gliss.

B. Trbn. bucket mute very slow gliss.

Tba.

Timp.

Tam-Tam

Bass Drum

Vibes

Piano p poco sim.

Hp. 8^{va}

Vln. I

Vln. II

Vla. div. p

Vc. espres. 8^{va} 8^{va} 8^{va}

CB tutti div. pizz./arco mp p

269 270 271 272 273 274

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

(1.)
(2.)
a2
sf
gliss.
gliss.
pp
gliss.
pp
cup mutes
cup mutes
p
p
CHIMES prominently
mf
8va
8va
sul IV
mp
poco f
poco f
sul IV
poco f
unis. arco

280 281 282 283 284

(285)

285

286

287

288

289