



SCIENCE

10%





De lijnen in dit ontwerp staan voor de twee muzikale "bewegingen" in "Physics". De verdubbeling naar vier lijnen duidt de ontwikkeling aan die de twee muzikale gegevens in deze compositie doormaken. In de tekst van dit deel zegt de natuurkundige Nikola Tesla: "I've been feeding pigeons, thousands of them for years." De ontstane "V"-vormen verbeelden vogels in hun vlucht.

Science - Physics

Science is een compositie van Verklanking, een samenwerkingsverband tussen componist Vincent Cox, wetenschapper Dr. Tim Leufkens en dirigent Frank Marx. Het muziekstuk stelt de vraag 'wat maakt een mens een mens?' centraal. Aan de hand van de verklanking van vier wetenschappen, namelijk natuurkunde, biologie, wiskunde en psychologie wordt gezocht naar een antwoord op de vraag. De compositie heeft naast de vier wetenschappen een introducerend deel, de hypothese, en een afsluitend deel, de falsificatie. De delen heten in volgorde van verschijnen 'Hypothesis', 'Physics', 'Biology', 'Mathematics', 'Psychology' en 'Falsifiability'.

Bij 'Physics' draait het om de relativiteitstheorie en wetenschapper Tesla. De relativiteitstheorie kenmerkt zich door twee verschillende tempi die tegelijkertijd worden gespeeld. En wetenschapper Tesla werd gekarakteriseerd als een vriendelijk, bescheiden persoon. Vooral open en heldere klanken zullen aan bod komen in dit deel.

Nikola Tesla :

"Man, like the universe, is a machine"

There is no conflict between the ideal of religion and the ideal of science, but science is opposed to theological dogmas because science is founded on fact. To me, the universe is simply a great machine which never came into being and never will end. The human being is no exception to the natural order. Man, like the universe, is a machine. Nothing enters our minds or determines our actions which is not directly or indirectly a response to stimuli beating upon our sense organs from without. Owing to the similarity of our construction and the sameness of our environment, we respond in like manner to similar stimuli, and from the concordance of our reactions, understanding is born. In the course of ages, mechanisms of infinite complexity are developed, but what we call "soul" or "spirit," is nothing more than the sum of the functionings of the body. When this functioning ceases, the "soul" or the "spirit" ceases likewise.

I have been feeding pigeons, thousands of them for years. But there was one, a beautiful bird, pure white with light grey tips on its wings; that one was different. It was a female. I had only to wish and call her and she would come flying to me. I loved that pigeon as a man loves a woman, and she loved me. As long as I had her, there was a purpose to my life.

"Dinner from exactly 8.10 p.m."

Science logo: Roy Wagemans
Projectie: Harry van Meurs

SCIENCE PHYSICS

KNOWLEDGE

MATTER

Vincent Cox
Text: Nikola Tesla

The musical score is for a piece titled "KNOWLEDGE" by Vincent Cox, with lyrics by Nikola Tesla. The score is in 4/4 time and features a diverse array of instruments and percussion. The instruments listed on the left include Tuned Glass (Eb), Watergong, Tuned Pipes, Glockenspiel, Timpano 23", Vibraphone, Timpano 26", Marimba 1 (29"), Marimba 2 (32"), Waterbells (ad lib.), Timpani, Flute, Clarinet in Bb, Alto Saxophone, Trombone 1, Trombone 2, Trombone 3, Bass Trombone, Euphonium, Sample, Kuniko Instrument Spring, Maracas, Springdrum, Hihat, Waterphone, Maracas, Snare Drum, Field Drum, Suspended Cymbal, Do, Tar, 2 Temple F, Bass Drum, 2 Japanese Woodblocks, 2 Woodblocks, Small Whip, and 3 Triangles.

Key musical elements and dynamics include:

- Tuned Glass (Eb):** Starts with a note at pitch 66, marked *p*.
- Timpani 26":** Features a *pp cresc.* followed by a *mf* section.
- Timpani 32":** Features a *pp cresc.* followed by a *mf* section.
- Timpani:** Includes a triplet marked *p*.
- Trombone 1 & 2:** Play a melodic line marked *mp dim.*
- Euphonium:** Features a triplet marked *p* and *mp*, with the instruction "with mute".
- Waterphone:** Includes a section marked "Waterphone, con arco, with vibrato".
- Bass Drum:** Features a triplet marked *mf 3*.
- Japanese Woodblocks:** Features a *pp cresc.* followed by a *mf* section.

The score includes various dynamic markings such as *pp*, *cresc.*, *mf*, *mp*, and *dim.*, along with performance instructions like "soft sticks", "with mute", and "con arco, with vibrato".

6

Tnd.Gls.
Watergong
Tnd. Pipes

Gdsp.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blocks

B.Dr.
2 Jap.W.Blocks.
2 W.Blocks.
Sml. Whip
3 Tri.

Timpani 23"
wooden sticks (double strokes)
pp cresc. *mf*

with brushes
pp cresc.

Timpani 29"
with brushes
pp cresc.

wooden sticks (double strokes)
mf *pp cresc.*

mf dim. *mp* *p*

pp *mp dim.*

pp *mp dim.*

pp *mp*

pp *mp*

pp *mf*

pp cresc. *mf* *pp cresc.*

wooden sticks (double strokes)
pp cresc. *mf*

with brushes
pp cresc.

SCIENCE- PHYSICS

12

Tnd. Gls.
Watergong
Tnd. Pipes

Glsp.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3
Harmon mute

B. Tbn.
Harmon mute

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat

W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

Watergong

1 MOTION **Più mosso** ♩=72

p

with superball
pp cresc. *gliss.* *mp* *gliss.*

Tubular Bells,
lift in or out water to produce gliss. 1.
mp

with brushes
mf cresc. *f dim.*

p *f* *p*

pp

mf

pp

mf

Windgong, *with superball*

Japanese Woodblocks, Mokushos
ricochet with handle of superball mallet

mf

SCIENCE- PHYSICS

16

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat

W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

p

with superball

pp cresc.

mp

gliss.

gliss.

pp cresc.

mp

with superball

pp cresc.

mp

gliss.

gliss.

l.v.

2. gliss.

l.v.

3. gliss.

l.v.

mp

mp

very soft sticks

p

mf

mp

pp

gliss.

3

Cup mute

pp < mf > pp

Cup mute

pp < mf

gliss.

pp < mf > pp

pp < mf > pp

mp

pp

mp

pp

f

Tamtam, with superball

pp

mp

pp

Waterphone

pp

f

SCIENCE- PHYSICS

SPACE 2 =40 very slow

22

Tnd. Gls.
Watergong
Tnd. Pipes

Glsp.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.
Dob.
Tam.
2 Tmpl.Blcks
B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

p

pp cresc.

gliss.

gliss.

highest possible tension

highest possible tension

pp < mp

pp < p

5.

4.

l.v.

gliss.

gliss.

mf

pp cresc.

ff

pp < mp > pp

pp

lowest possible tension

*very soft sticks
lowest possible tension*

*very soft sticks
lowest possible tension*

pp < p

ppp

Springdrum

pp

SCIENCE-PHYSICS

3 TIME

30 Tuned Glass =60 =92 Subito =60 =92 Subito rit. =60

Tnd. Gls. Watergong Tnd. Pipes *pp*

Glsp. Timp. 23" *soft sticks pp cresc. f*

Vib. Timp. 26" *soft sticks pp cresc. f*

Mar. 1 Timp. 29" *soft sticks pp cresc. f*

Mar. 2 Timp. 32" *soft sticks pp cresc. f* *resc. f*

W.Bls.

Timp. *medium sticks f dir* *f dim. mf > p*

Fl.

Cl.

Alto Sax.

Tbn. 1 *Straight mute p f³ dim. p*

Tbn. 2 *Straight mute p f³ dim. p*

Tbn. 3 *Straight mute p f³ dim. p*

B. Tbn. *t mute dim. p f³ dim. p*

Euph. *open mf³ < f > pp mf < f > pp*

Sample

Kuniko Instr. Mar. small Wind Gng. Springdrum Hihat W. Phone Mar. med. Snare Drum Field Drum S. Cym. Dob. Tam. 2 Tmpl. Bcks

Tamtam, gliss with triangle beater *f*

Bass Drum *soft sticks pp cresc. f*

B. Dr. 2 Jap. W. Bcks. 2 W. Bcks. Sml. Whip 3 Tri. *pp cresc. f*

SCIENCE- PHYSICS

ENERGY

39 4 =152

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

*with brushes
molto secco*
p — *mf*

*with brushes
molto secco*
p — *mf*

*with brushes
molto secco*
p — *mf*

*with brushes
molto secco*
p — *mf*

*hard sticks/ wood
molto secco*
f — *mp* — *p* — *f*

Straight mute
mf — *f*

Straight mute
mf — *f*

Straight mute
mf — *f*

Straight mute
mf — *f*

mf — *f*

p — *ff* — *p*

hat
p — *f*

rim
p — *f*

Field Drum, play on rim
p — *f*

mf — *p* — *mf* — *p* — *mf* — *p* — *mf*

mf



42

Tnd.Gls.
Watergong
Tnd. Pipes

Gls.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

p *mf*

p *mf*

f dim. *f dim.* *p*

f *mf* *p* *f*

f *mf* *p* *f*

f *mf* *p* *f*

f *mf* *p* *f*

p *ff* *p* *p* *ff*

p *f* *p cresc.* *f*

f *p cresc.* *f*

p *mf* *p* *mf* *p*

SCIENCE- PHYSICS

45 rit.

Tnd.Gls.
 Watergong
 Tnd. Pipes
 Gls.
 Timp.23"
 Vib.
 Timp.26"
 Mar.1
 Timp.29"
 Mar.2
 Timp.32"
 W.Bls.
 Timp.
 Fl.
 Cl.
 Alto Sax.
 Tbn.1
 Tbn.2
 Tbn.3
 B. Tbn.
 Euph.
 Sample
 Kuniko Instr.
 Mar.small
 Wind Gng.
 Springdrum
 Hihat
 W.Phone
 Mar.med.
 Snare Drum
 Field Drum
 S.Cym.
 Dob.
 Tam.
 2 Tmpl.Bcks
 B.Dr.
 2 Jap.W.Bcks.
 2 W.Bcks.
 Sml. Whip
 3 Tri.

p *mf*
p *mf*
p *mf*
p *mf*
soft sticks
f *dim.*
ff
ff
ff
ff
p *pp*
p *mf*
mf

ticks, fast gliss. l.v.
s, fast gliss. l.v.
s, fast gliss. l.v.
f
s, fast gliss. l.v.
f
mf
mf
mf
mf
mf

THEORY
Relativity

6

$\text{♩} = 132$

(2+2+3, 2+2+2+3, 2+2+3, 2+2+2+3)

49 Tuned Cowbells

Tnd. Gls.
Watrgong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

p *mp*

pp cresc. *3*

triangle beater

Jblock low *high*

pp

SCIENCE- PHYSICS

50 *simile*

Tnd. Gls.
Watergong
Tnd. Pipes

Glockenspiel, *bright/light sound*
Gls. Timp. 23"
pp

Vibraphone, *bright/light sound*
Vib. Timp. 26"
pp

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.
play with brushes
pp

Fl.
pp poco a poco cresc.

Cl.
pp poco a poco cresc.

Alto Sax.

Tbn. 1
open
p

Tbn. 2
open
p

Tbn. 3
open
p

B. Tbn.
open
dim.
p

Euph.
mp dim.
p

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

SCIENCE- PHYSICS

51

Tnd.Gls.
Watrgong
Tnd. Pipes

Gls.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

Marimba, bright/light sound
pp \longleftarrow *p*

mp dim. *p*

SCIENCE- PHYSICS

Tnd.Gls.
 Watrgong
 Tnd. Pipes
 Gls.
 Timp.23"
 Vib.
 Timp.26"
 Mar.1
 Timp.29"
 Mar.2
 Timp.32"
 W.Bls.
 Timp.
 Fl.
 Cl.
 Alto Sax.
 Tbn.1
 Tbn.2
 Tbn.3
 B. Tbn.
 Euph.
 Sample
 Kuniko Instr.
 Mar.small
 Wind Gng.
 Springdrum
 Hihat
 W.Phone
 Mar.med.
 Snare Drum
 Field Drum
 S.Cym.
 Dob.
 Tam.
 2 Tmpl.Blcks
 B.Dr.
 2 Jap.W.Blcks.
 2 W.Blcks.
 Sml. Whip
 3 Tri.

pp \leftarrow *p*

Marir

mp dim. *p*

53

Tnd. Gls.
Watrgong
Tnd. Pipes

Gls.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

poco cresc.

poco cresc.

poco cresc.

pp *p*

pc

poco cresc.

mp dim. *p*

poco cresc.

54

Tnd.Gls.
Watrgong
Tnd. Pipes

Gls.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

p

p

p

pp *p*

f

p

p

p cresc.

mf dim.

p

p cresc.

mf dim.

p

p cresc.

mf dim.

p

p

mf dim.

p

c. *mf* *mf dim.* *p*

p-

p

SCIENCE-PHYSICS

55

Tnd.Gls.
Watergong
Tnd. Pipes

Gls.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

pp *p* *pp* *p*

p cresc. *mf dim.* *p*

p cresc. *mf dim.* *p*

p cresc. *mf dim.* *p*

p cr *mf dim.* *p*

mf dim. *p*

p -

56

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Bcks

B.Dr.
2 Jap.W.Bcks.
2 W.Bcks.
Sml. Whip
3 Tri.

pp *p* *pp* *p*

p cresc. *mf dim.* *p*

p cresc. *mf dim.* *p*

p cresc. *mf dim.* *p*

p c *mf dim.* *p*

mf dim. *p*

p-

SCIENCE- PHYSICS

57

Tnd.Gls.
Watergong
Tnd. Pipes

Gls.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

poco cresc.

poco cresc.

poco cresc.

p *mp*

poco cresc.

poco cresc.

p *cresc.*

mf dim. *p*

p *cresc.*

mf dim. *p*

p *cresc.*

mf dim. *p*

p

mf dim. *p*

c. *mf dim.*

p

poco cresc.

58

Tnd. Gls.
Watrgong
Tnd. Pipes

Gls.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

mp

mp

mp

p *mf* *p* *mf*

mp

mp

p cresc. *f dim.* *p*

p cresc. *f dim.* *p*

p cresc. *f dim.* *p*

p *f dim.* *p*

.sc. *f dim.* *p*

p-

mp

SCIENCE-PHYSICS

59

Tnd.Gls.
Watergong
Tnd. Pipes

Glsp.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

p *mf* *p* *mf* *p* *mf*

p cresc. *f dim.* *p*

p cresc. *f dim.* *p*

p cresc. *f dim.* *p*

p *f dim.* *p*

f dim. *p*

p-

SCIENCE-PHYSICS

60

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

p *mf* *p* *mf* *f* *f* *f* *f* *f* *p* *f*

SCIENCE-PHYSICS

61

Tnd. Gls.
Watergong
Tnd. Pipes

Glsp.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

p *mf* *p* *mf* *p* *mf*

cresc. *3* *3* *cresc.* *cresc.* *cresc.* *ff dim.*

SCIENCE- PHYSICS

62

Tnd. Gls.
Watrgong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

cresc.

cresc.

cresc.

p *f* *p* *f*

cresc.

cresc.

f

p *f*

cresc.

p

cresc.

f

63

Tnd. Gls.
Watgong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

SCIENCE- PHYSICS

64

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

p

mp

pp

dim.

7+9 8 7+9

pp

pp

pp

SCIENCE- PHYSICS

65 rit.

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

p *mp* *ppp* *ppp*

SCIENCE- PHYSICS

SCIENTIST
Tesla

30

66 7 ♩=66

The musical score is for the piece "SCIENTIST - PHYSICS" and is page 30 of a larger work. It is in 4/4 time with a tempo of 66 beats per minute. The score is written for a large ensemble of instruments. The top section includes Tnd. Gls., Watergong, Tnd. Pipes, Glsp., Timp. 23", Vib., Timp. 26", Mar. 1 (Timp. 29"), Mar. 2 (Timp. 32"), W. Bls., and Timp. The middle section features Fl., Cl., and Alto Sax. The bottom section includes Tbn. 1, 2, and 3, B. Tbn., Euph., Sample, and a variety of percussion instruments: Kuniko Instr., Mar. small, Wind Gng., Springdrum, Hihat, W. Phone, Mar. med., Snare Drum, Field Drum, S. Cym., Dob., Tam., 2 Tmpl. Blcks., B. Dr., 2 Jap. W. Blcks., 2 W. Blcks., Sml. Whip, and 3 Tri. The Flute part has a melodic line starting at measure 66 with a *p* dynamic, featuring sixteenth-note runs with sixteenth and triplet markings. The Vibraphone part has a *con arco* marking and a *p* dynamic. The Maracas parts have specific rhythmic patterns. The percussion section includes various drum and gong parts. A large "SCIENCE- PHYSICS" watermark is overlaid diagonally across the page.

67

Tnd. Gls.
Watergong
Tnd. Pipes

Glsp.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

SCIENCE- PHYSICS

69

Tnd. Gls.
Watergong
Tnd. Pipes

Glsp.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.
(f#)

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Bcks

B.Dr.
2 Jap.W.Bcks.
2 W.Bcks.
Sml. Whip
3 Tri.

SCIENCE- PHYSICS

71

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.
(ab)

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

73

Tnd. Gls.
Watergong
Tnd. Pipes

Glsp.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

mp dim. *p*

pp cresc.

(eb) *tr*

(c) *6*

f *mf*

f dim. 3 *mf* *f*

75

Tnd. Gls.
Watergong
Tnd. Pipes

Glsp.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

76 **8** Poco meno mosso ♩=60

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat

W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

pp

mal

pp

pp

pp cresc.

cresc.

mp

d time tacet

p

mp

mp

p dim.

p

pp

veen...."

Windgong, play with brushes

Suspended Cymbal, gliss., with triangle beater

Triangles

78

Tnd.Gls.
Watrgong
Tnd. Pipes

Gls.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

pp cresc.
(no trill)

p

pp

p dim.

pp

mp

p

p dim.

80

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

pp cresc.

p

pp cresc.

mp

p dim.

SCIENCE-PHYSICS

82

Tnd. Gl.s.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

pp *cresc.* *p* *mp* *dim.*

3 3 3 3 3 3 3 3 3 3

Tnd. Gls.
Watergong
Tnd. Pipes

Glsp.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

86

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

pp 3 3 3 p dim.

pp 3 cresc. 3 3 p

p

p

p dim.

3

Tuned Glass

95

Tnd.Gls.
Watrgong
Tnd. Pipes

Gdsp.
Timp.23"

Vib.
Timp.26"

Mar.1
Timp.29"

Mar.2
Timp.32"

W.Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn.1

Tbn.2

Tbn.3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar.small
Wind Gng.
Springdrum
Hihat
W.Phone
Mar.med.
Snare Drum
Field Drum
S.Cym.

Dob.
Tam.
2 Tmpl.Blcks

B.Dr.
2 Jap.W.Blcks.
2 W.Blcks.
Sml. Whip
3 Tri.

SCIENCE- PHYSICS

99

Tnd. Gls.
Watergong
Tnd. Pipes

Gls.
Timp. 23"

Vib.
Timp. 26"

Mar. 1
Timp. 29"

Mar. 2
Timp. 32"

W. Bls.

Timp.

Fl.

Cl.

Alto Sax.

Tbn. 1

Tbn. 2

Tbn. 3

B. Tbn.

Euph.

Sample

Kuniko Instr.
Mar. small
Wind Gng.
Springdrum
Hihat
W. Phone
Mar. med.
Snare Drum
Field Drum
S. Cym.

Dob.
Tam.
2 Tmpl. Blcks

B. Dr.
2 Jap. W. Blcks.
2 W. Blcks.
Sml. Whip
3 Tri.

START SAMPLE 4
"Dinner from exactly 8;10 p.m."