

MEDITATION

~ AFTER THE DEATH OF STEPHEN HAWKING ~

FOR SOPRANO, FLUTE, DOUBLE BASS, AND FIXED MEDIA

JORDAN ALEXANDER KEY

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~ MEDITATION ~

AFTER THE DEATH OF STEPHEN HAWKING

FOR THE FONEMA CONSORT

February, 2019

FIXED MEDIA ON TEXTS FROM

Carl Sagan
Stephen Hawking
Richard Dawkins

Jane Goodall
Wangari Maathai
Malala Yousafzai

Mediation after the Death of Stephen Hawking

Text digitally excerpted from recordings of Richard Dawkins, Jane Goodall, Stephen Hawking, Wangari Maathai, Carl Sagan, and Malala Yousafzai (listed alphabetically by last name).

Carl Sagan:

The Earth is a very small stage

In a vast cosmic arena

Our posturings, our imagined self-importance,

the delusion that we have some

privileged position in the universe

are challenged by this point of pale light.

News Anchor 1:

Every single word comes from

the movement of a cheek muscle,

a very tiny specific muscle...

...

That requires extreme dedication and commitment

Stephen Hawking:

Can you hear me?

...

...

40 years ago I wrote a paper,

“Breakdown of Predictability in Gravitational Collapse,”

in which I claimed there would be loss of predictability

of the final state

if the black hole evaporated completely.

Richard Dawkins:

Hello. Thank you very much for coming.

News Anchor 2:

He can only type one to two words a minute...

...

He married twice,

had three children

and outlived the prognosis

by 43 years...

...

Treating every single day

as a chance to ask a new question.

Malala Yousafzai:

Dear sisters and brothers.

I speak not for myself,

...

but so those without voice can be heard.

Richard Dawkins:

The brain is a kind of computer,

but it's a computer

such as no human factory

has ever turned out.

Wangari Maathai:

"What are you doing?" said the other animals

...

(Wangari Maathai con't.)

"You are too little for the fire.

...

...

...

We are overwhelmed.

...

You should be as well."

Carl Sagan:

The aggregate of our joy and suffering,

thousands of confident religions and ideologies,

and economic doctrines,

every hunter and forager,

every hero and coward,

every creator and destroyer of civilization.

Richard Dawkins:

I suspect that there are more things

Stephen Hawking:

Much of my own life

...

has been spent

exploring the nature of black holes,

their geometry,

evolution,

and the fate of those unlucky enough

to fall in.

Stephen Hawking:

We know that there is at least

one advanced civilization...

...

...

With a propensity

for destroying species,

ecosystems,

...

atmospheres, and weather patterns,

...

Perhaps entire planets.

Richard Dawkins:

Now my own suspicion is that the universe

is not only queerer

than we suppose,

but queerer than we can suppose.

*in heaven and earth
than are dreamed of
or can be dreamed of
in any philosophy.*

Malala Yousafzai:
On the 9th of October, 2012

Stephen Hawking:
Stars engulf planets,

Malala Yousafzai:
The Taliban

Stephen Hawking:
Supernovas fire lethal rays across space

Malala Yousafzai:
Shot me on the left side of my forehead...

Stephen Hawking:
*Asteroids hurtle around
at hundreds of miles a second.*

Malala Yousafzai:
They shot my friends too.

Wangari Maathai:
*I like to tell a story of a humming bird.
I don't know how many of you
have heard me tell about
the humming bird...*

Carl Sagan:
*every king and peasant
every mother and father,*

...
every couple in love,

...
*infant child,
inventor and explorer,
every teacher of morals,*

...
every corrupt politician,

...
...
every "superstar,"

every "supreme leader,"

...
...
...
*every saint and sinner
in the history of our species.*

...
...
*lived there,
on a mote of dust
suspended in a sunbeam.*

Richard Dawkins:

*After sleeping for a hundred and forty million centuries
we have finally woken up
in the universe.*

*We've opened our eyes
on a wonderful planet.
filled with color,
teeming with life.*

*Before very long
we shall have to close our eyes again.*

Wangari Maathai:

*So this story is the story of a forest
that caught fire,
and it was a HUGE fire.*

*They felt like there was nothing they could do
Because the problem
was TOO much for them.*

*Except for
this little humming bird.*

Carl Sagan:

*Think of the rivers of blood spilled
by all those generals and emperors
So that in glory and triumph
they could become
the momentary masters
of a fraction
of
a
dot*

Malala Yousafzai:

*They thought that the bullet would silence us,
...*

...

Richard Dawkins:

So where does life come from?

...

...

What is it? Why are we here?

...

What are we for?

but they failed.

What is the meaning of life?

Malala YouSafzai:

They think that God

is a tiny,

little

conservative being...

Malala Yousafzai:

*And out of that silence came
THOUSANDS OF VOICES!*

Wangari Maathai:

The humming bird said, "I'm going to do something about the fire."

Stephen Hawking:

*Whenever we make a great new leap,
like the moon landings,
WE
bring people and nations together,
usher in new discoveries
and new technologies.*

Jane Goodall:

*We are just part of the animal kingdom,
and we are not the only beings
with personalities
and minds capable of reasoning,
and certainly not the only being
with emotions like
happiness
sadness
fear
despair.
Nor are we the only being capable of
giving and receiving love.*

Wangari Maathai:

*"What do you think you are doing?"
said the other animals.*

...

... Stephen Hawking:
... *We are entering*
... *an increasingly dangerous period*
... *of our history*

Wangari Maathai:

*There is something in our lives that we can do,
no matter how small it is.*

Carl Sagan:

Think of the endless cruelties visited

...

...

...

...

*on the inhabitants of one corner
of this pixel*

...

...

Wangari Maathai (con't.)

"You are too little for the fire."

...

...

"We are overwhelmed. You should be as well."

Malala Yousafzai:

*I am here to speak up
for the right of education
for every child.*

Wangari Maathai:

*Now the hummingbird,
without stopping her work,
she continued running up and down to get the water,
but she turned once
to the other animals
and said,*

"I'm doing the best I can."

That, my friends, is all we are called to do:

*To do
the best
we can.*

Carl Sagan (con't.)

...

*on the scarcely distinguishable inhabitants
of some other corner.*

...

How frequent their misunderstandings.

*How eager they are
to kill one another.*

How fervent their hatred.

Carl Sagan:

*Our planet
is a lonely speck
in the great enveloping
cosmic dark.*

*In our obscurity,
in all this vastness,
there is no hint that help will come
from elsewhere
to save us
from ourselves.*

Meditation after the Death of Stephen Hawking

Jordan Alexander Key
February 2019

Mysterious (♩ = c. 50 bpm)

0" 4" 9" 14" 19" 24" 28"

Fixed Media (c. 4' of silence) (ethereal string sounds) *n*

Soprano Solo *pondersome* * *pp* Hmm... *pp* *mp* *p* Hmm oo ha ha

Flute *mournful* * *n* *pp*

Double Bass *delicate, with precision* (sounding pitch) * *pp* *sim.* SP (sul pont.) *mp*

5

FM Carl Sagan: (tinkle sounds)
The Earth is a very small stage... in a vast cosmic arena

Sop. *non vib.* *p* (no articulation between pitches) *mp* *n*
Ooo... Ah...


Fl. *pp* *p* 3:2

Db. PO (position ord.) *sim.* *pp* II SP III *mf* II



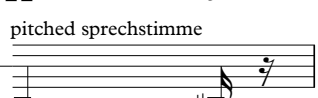
33"

38"


8

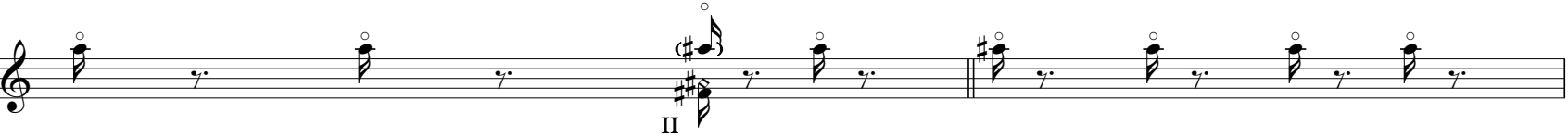
FM  (flute growl) _____

nervously but delicate
8va. (if possible)

Sop. *mf*  *mf*  *f* *pp*  *f*

ah ee oh ee ah ee oh ee ah ee oh ee tak - o - teek - ah - toh Ah.

Fl.  *f* *p*


Db.  *II*

43"

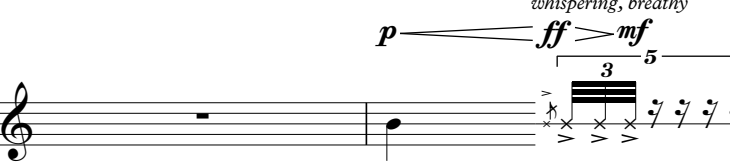
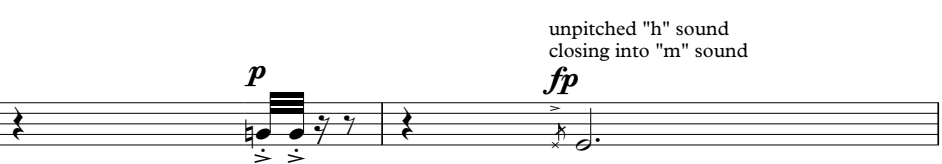
48"

52"


10


FM  Sagan: _____ (flute growl) _____

Our posturings, our imagined self-importance, *the dilusion that we have some privileged position in the universe*

S. Solo *p*  *ff* *mf* *p*  *fp*

Ah - ah ee oh ee ha ha h mm...

Fl.  *pp* *p* *5:4* *5:4* *p* *5:4* *pp* *6:4*

Db. 

13

FM (piano crash)
are challenged by this point of **pale** light.

Sop. *mp* he he he he *pp* pitched sprechstimme *f* Ah.

Fl. *f* *ff* *p*
on "pale" in tape, crashing with fixed media

Db. *ff* *mp*
on "pale" in tape, crashing with fixed media
pizz.
col legno gettato, drawing bow towards bridge for a slight upwards gliss.
rapid bowing above the nut.

15

FM News Anchor 1:
a very tiny specific muscle.... That requires... extreme dedication and commitment.

Sop. *pp* hm hm hm hm (...) *pp* hm
News Anchor 2:
He can only type one to two words a minute
with back of tongue pushed against the roof of the mouth, sing "he" rapidly without measure
with a nasal sound, fluxuating indefinitely in pitch around G generally following given contour.

Fl. *p* tak - o - teek - ah - toh *pp*
unpitched percussive sounds into flute

Db. *p* sim. PO *pp*

1'16"

1'21"

1'26"

17

FM **H** News Anchor 2: *treating every single day as a chance to ask a new question* Stephen Hawking: *40 years ago I wrote a paper, "Breakdown of Predictability in Gravitational Collapse," in which I claimed there would be loss of predictability...*

Sop. *mp molto espress.* **3:2** normal tone changing to... *p* con't. as sprechstimme... *pp* con't. as whisper
Ah speaking many random nonsense syllables as fast as possible on pitch

Fl. *f* with some pitch, with articulated, breathy consonances.
can you hear me? can you hear me?

Db. ord. to scratch *mp* *ff* *pp* harmonic node, arco ord.... change to... multiphonic high action, light bow pressure
sul E *mp* *mf*

1'31"

1'36"

20

FM **H** Stephen Hawking: *of the final state if the black hole evaporated completely.* Richard Dawkins: *Hello. Thank you very much for comming.*

S. Solo *sim.* *p* he he he he... *pp* he

Fl. *p* *mf* *mp* *f* (bend)

Db. touch string only *mp* 7

1'40" 1'45" 1'50" 1'55"

22 Malala Yousafzai: Stephen Hawking: Richard Dawkins:
 Dear sisters and brothers. I speak not for myself,... but so those without voice can be heard has been spent exploring the nature of black holes, their geometry, evolution, and the fate of those...
 The brain is a kind of computer, but its a computer such as no...

FM

Sop. *p* *mp* *sprechstimme, robotic*
 ee ee ee ee ee ee I speak not for my - self

Fl. *mp* (bend) *p* *mf* *furtive* 5 3 3 3

Db. PO -----> SP l.h. pizz. *mf* > *p* (arco, sul pont.) arco ord. *n*

2'00" 2'04"

26 Stephen Hawking: Richard Dawkins:
 ...unlucky enough to fall in. (orchestral crash)
 ...human factory has ever turned out.

FM

Sop.

Fl. *pp* 5:4 5:4 6:4 7:4 *f* *f* jet whistle (high to low) (harmonic) (as *p* as possible)

Db. pizz. 3:2 3:2 *p* *ff* col legno gettato, drawing bow towards bridge for a slight upwards gliss. Some clattering may result due to the E-string still vibrating from the pizz. *f* *mp*

2'09"

2'14"

2'19"

28 Wangari Maathai:
"What are you doing?" said the other animals.

"You are too little for the fire."

"We are overwhelmed."

FM

Stephen Hawking:
We know that there is at least one advanced civilization... With a propensity for destroying species, ecosystems...

Sop. *f* *mp*
ah ee oh ee ah ee oh ee ah ee oh ee Ah
with anxiety and fear
non vib. ... changing to ... normal vib. ... to ... wide vib.

Fl. *mf* *p* *ff* *mp*
fevered

Db. *p* *mf*

SP ----->

2'24"

2'28"

2'33"

31 Wangari Maathai:
"We are overwhelmed."

"You should be as well."

Carl Sagan:
The aggregate...

FM

Stephen Hawking:
atmospheres, and weather patterns... perhaps entire planets.

Slide as low as possible while maintaining a wide vib. tone. Changing to something akin to sprechstimme while glissing down might aid in the lower range.

arrive here on "well"
mf *n*
speaking many random nonsense syllables as fast as possible without pitch, but low.

arrive here on "well"
jet whistle
(low to high)

arrive here on "well"
SP

Sop.

Fl.

Db.

fff

fp *n*

2'38" 2'48" 2'52"

34

FM Carl Sagan: *... of our joy and suffering, thousands of confident religions and ideologies, and economic doctrines, every hunter and forager, ...* Carl Sagan: *... every hero and coward, every creator and destroyer of civilizations, ...* Richard Dawkins: *Now my own suspicion is that the universe is not only queerer than we suppose...*

Sop.

Fl. *short, but delicate, not cut*
p

Db. PO
pp

2'57" 3'02" 3'07"

37

FM Richard Dawkins: *...but queerer than we can suppose.* Carl Sagan (antiphonally): *... every king and peasant, every mother and father, every couple in love, inventor and explorer, every corrupt politician, every "superstar," ...* Richard Dawkins: *I suspect that there are more things in heaven and earth than are dreamed of or can be dreamed of in any philosophy* Stephen Hawking: *Stars engulf planets, ...* *... supernovas fire lethal rays across space ...*

Sop. *freely, clear and chant-like*
mp
ah oo... (oo)...

Fl.

Db. Malala Yousafzai: *... On the 9th of October, 2012, ...* *... the Taliban ...*

3'12" 3'16" 3'21"

40 Carl Sagan:
... every "supreme leader," every saint and sinner in the history of our species...
... lived there... ... on a mote of dust... ... suspended in a sunbeam.

FM

Malala Yousafzai:
... shot me on the left side of my forehead ...
... they shot my friends too.

Stephen Hawking:
Asteroids hurtle around at hundreds of miles a second

Sop. *p* *sprechstimme* *n*
hmm Oh Ah

Fl. *pp* (bend)

Db. PO ----- SP I (slowly and quietly as possible) *pp*

"Seagull Effect": Gliss harmonics, maintaining finger position, rather than interval ratio. The position here is just a suggestion. This might vary depending on the instrument and stretch capability of the fingers.

3'26" 3'31" 3'36" 3'40"

43 Wangari Maathai
I like to tell a story of a humming bird. I don't know how many of you have heard me tell about the humming bird

FM

Richard Dawkins:
After sleeping for a hundred and forty million centuries we have finally woken up in the universe. We've opened our eyes on a wonderful planet...

Sop. *p* (bend) *pp* *mp* relaxed, like a jazz singer
Mm - - - oo Ah...

Fl. *pp* *freely* *(as p as possible)* overtone blowing

Db. *ppp* *p* *arco mobile ad lib.

Detune E string to D-flat. In doing this, you may pluck the string, letting a slight pizz. descending gliss. sound.

*Arco Mobile is a special technique in which a sustained pitch is subjected to small variations in bow pressure whilst continually varying the bow position over a wide range of placements. By varying the range of placements of pressures, a wide range of overtones are produced in addition to the fundamental resulting in a continually changing sonic spectrum.

3'45"

3'50"

3'55"

4'00"

47

Richard Dawkins:
... filled with color, teeming with life. Before very long
we shall have to close our eyes again.

Wangari Maathai:
They felt like there was nothing they could do because the problem was
too much for them...

FM

Wangari Maathai:
So this story is the story of a forest that caught fire, and it was a huge fire

Sop.

oo - mm - - - - - ah (scoop into note) *n*
(ah)

Fl.

p 5:4 *f* 5:4 *pp* 6:4

Db.

transition to spiccato bow harmonic activation slowly dissipate and cease bowing *n*

4'04"

4'09"

4'14"

4'19"

51

Carl Sagan:
Think of the rivers of blood spilled by all those generals and emperors...
... so that in glory and triumph they could become the momentary masters of a fraction of a dot.

Wangari Maathai:
Except for this little humming bird.

FM

Sop.

Why? _____ Can you hear? Can you hear? Why? _____

Fl.

p (bend) *mp* (bend)

Db.

col legno battuto
molto espressivo, undulating rhythmically, with slight random accents
p sim.

4'24" Malala Yousafzai (antiphonally):
55 They thought that the bullet would silence us...
... They think that God is a tiny, little conservative being...
4'28" ... but they failed

Richard Dawkins:
So where does life come from? ...
...What is it? Why are we here? What are we for? What is the meaning of life?

FM

Sop. *f* straight as possible... ... moving to wide vib. *mp* *f*

Fl. Why!

Db. as fast as possible *mf*

4'33" Malala Yousafzai:
57 And out of that silence came thousands of voices!

4'38" Wangari Maathai:
The humming bird said, "I'm going to do something about the fire."

4'43"

FM

Sop.

Fl. *mf* *f* *ff* jet whistle (high to low) unpitched air sound blowing through flute

Db. SP *ff* "Dragging tone" pulling the bow into the string and upwards PO Detune A-string down one half-step to A-flat *mf*

4'48"

4'52"

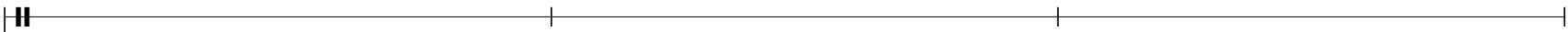
4'57"

60

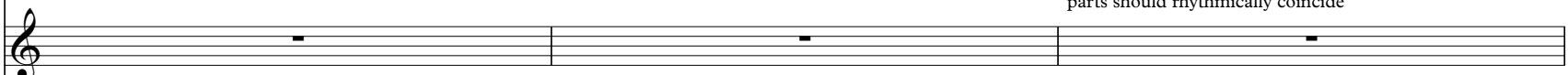
Stephen Hawking:

Whenever we make a great new leap, like the moon landings, we elevate humanity, bring people and nations together, usher in new discoveries and new technologies.

FM

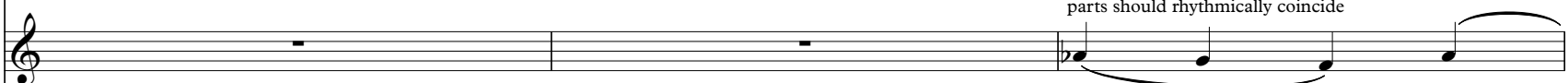


Sop.



parts should rhythmically coincide

Fl.



parts should rhythmically coincide

p

Db.



sul G harmonic gliss.

mp

5'02"

5'07"

5'12"

63

Jane Goodall:

We are just part of the animal kingdom, and we are not the only beings with personalities and minds capable of reasoning...

Jane Goodall:

... and certainly not the only being with emotions like happiness, sadness...

FM



Wangari Maathai:

There is something in our lives that we can do, no matter how small it is.

Sop.



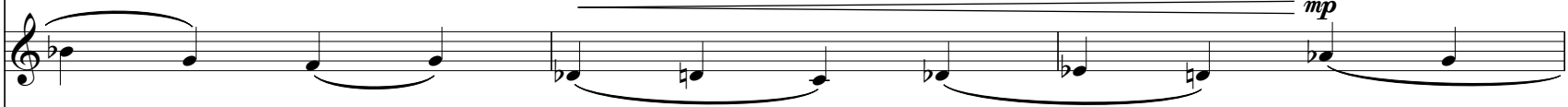
sliding between pitches

p

mp

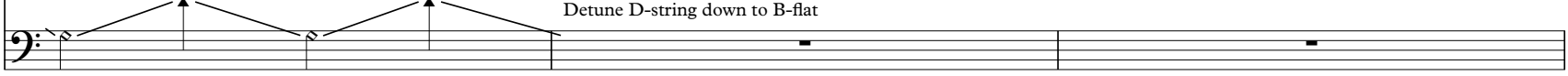
Wah - oh Wah - oh Wah - -

Fl.



mp

Db.



Detune D-string down to B-flat

5'16" 5'21" 5'26"

66 ... fear, despair. Nor are we the only beings capable of giving and receiving love.... Carl Sagan: Think of the endless cruelties visited... Wangari Maathai: ... on the inhabitants of one corner of this pixel ...

FM **||**

(orchestral drum roll) *mf* Wangari Maathai: "What do you think you are doing?" said the other animals.

Sop. - - oh Can you hear me? Wah - -

Fl. *freely, clear and chant-like improvisational, not so rhythmically precise.* improvised a-flat/g neighbor figure as before

Db. parts should rhythmically coincide sul G *p* *mf* *mp* sul G sul "D-string"

5'31" 5'36" 5'40" 5'45"

69 Carl Sagan: ... on the scarcely distinguishable inhabitants of some other corner. Wangari Maathai: "You are too little for the fire." Stephen Hawking: "We are entering an increasingly dangerous period of our history." Carl Sagan: "We are overwhelmed. You should be as well" Malala Yousafzai: "I am here to speak up ..." Wangari Maathai: "We are overwhelmed. You should be as well" Carl Sagan: How frequent their misunderstanding. How eager they are to kill one another. How fervent their hatreds. Malala Yousafzai: I am here to speak up ... Wangari Maathai: ... for the right of education of every child.

FM **||**

Wangari Maathai: "You are too little for the fire." Stephen Hawking: "We are entering an increasingly dangerous period of our history." Wangari Maathai: "We are overwhelmed. You should be as well" Carl Sagan: How frequent their misunderstanding. How eager they are to kill one another. How fervent their hatreds. Malala Yousafzai: I am here to speak up ... Wangari Maathai: ... for the right of education of every child.

Sop. - - oh Wah - - - oh Wah *f*

Fl. improvised d-flat/c neighbor figure as before improvised a-flat/g neighbor figure as before

Db.

5'50"

5'55"

6'00"

6'04"

73

Wangari Maathai:

Now the hummingbird, without stopping her work... ... she continued running up and down to get the water... ... but she turned once to the other animals and said, "I'm doing the best I can."

FM



nervously but delicate
8va. (if possible)

mf

3

5

3

5

3

freely

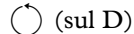
Sop.

ah ee oh ee ah ee oh ee ah ee oh ee oo...

play any of these pitches individually under staccato articulation
with random dynamics in any available octave at pseudo random
time intervals (c. 5 to 7 per measure of time)

Fl.

circular bowing; dynamics
ad lib. between pp and mf



sim.

Db.

(*pp*) >> -----

6'09"

6'14"

6'19"

6'24"

77

Carl Sagan:

Our planet... is a lonely speck... ... in the great enveloping cosmic dark... In our obscurity... in all this vastness...

Wangari Maathai:

That, my friends, is all we are called to do... ... to do the best... ... we can.

FM



widening vibrato -----

p

mp

mf

f

slide into tone

Sop.

Wah... Wah...

Fl.

pp

mp

mf

f

Db.

PO

pp

mp

mf

f

6'28" 6'33" 6'38" 6'43"

81 Carl Sagan:
... there is no hint that help will come from elsewhere to save us from ourselves.

Malala Yousafzai:
We will continue our journey! One child, ... one teacher, ... one hope...

FM **H**

Wangari Maathai:
You cannot enslave a mind that knows itself... that values itself... that understands itself.

Sop. **G**

n ————— *f*

RANDOM HIGH PITCHES

GLOTTAL EFFECTS

FLUTTER TONGUE

SCREAMING

JET WHISTLES

ULULATIONS

ff

FL. **H**

Anxious improvisation:

FEVERED NOISES

ETC.

ETC.

ETC.

ETC.

ETC.

Db. **G**

n ————— *f*

RANDOM LOW PITCHES

FREELY ALTERNATING TECHNIQUES

SCRATCH TONES

BOWING ABOVE NUT

ff

6'48" 6'52" 6'57" 7'02"

85 Malala Yousafzai:
... and one pen can change the world.

(orchestral crash)

Malala Yousafzai:
Dear sisters and brothers ...

... we realize the importance of ...

FM **H**

(Tutti) **H** **SUDDEN SILENCE ON ORCHESTRAL CRASH**

parts should rhythmically coincide

parts should rhythmically coincide

parts should rhythmically coincide

p ————— *pp*

pp

7'07" 7'12" 7'16" 7'21"

89 Malala Yousafzai:
... light, when we see darkness. ... We realize the importance of our voice when we are silenced.

FM

Stephen Hawking:
Here are the most important pieces of advice that I have passed on to my children.

Sop. *p* gentle, with little vibrato, like a jazz singer. *mp* *pp* *mp*
oo - - - - (slowing changing to...) ah ah..

Fl.

Db.

7'26" 7'31" 7'36" 7'40"

93

Stephen Hawking:
One: remember to look up at the stars and not down at your feet.

Malala Yousafzai:
We must not forget.

Stephen Hawking:
Two: never give up work - work gives you meaning and purpose and life is empty without it.

Malala Yousafzai:
We must not forget!

FM

Sop. *mf* *mf* *mp*
oo...

Fl.

Db.

7'45" 7'50"

97

FM **||**

Stephen Hawking:
Three: if you are lucky enough to find love... remember it is there and don't throw it away.

Sop. *mf* *mp* *p* as gently as possible
 (oo) - - - - ah...

Fl. *p*

Db. *delicate* *mp*

7'55" 8'00" 8'04" 8'09"

99

FM **||**

Malala Yousafzai:
We must not forget...

Carl Sagan:
Persist and cherish the pale blue dot... the only home we've ever known.

Sop. *pp* *p* *pp*
 ah

Fl. *pp* *n*

Db. *pp*

III
IV

8'14" 8'19" 8'24" 8'28" 8'33"

103

(chimes and bells begin and decay into nothingness)

FM

Sop. *pp* *sombre, expressive, but gentle, not overpowering the tape.* *mp* *p*
 oo - - - - - ah

Fl. *pp* *sombre, expressive, but gentle, not overpowering the tape.* *mp* *p*

Db. *arco mobile until end*
ppp

8'38" 8'43" 8'48" 8'52" 8'57" c. 9'30"

108

FM

Sop. *mp* *p* *n*
 ah - - - - - oo

Fl. *mp* *p* *n*

Db. *n*