Garth Knox

Satellites (2015)

1. Geostationary
2. Spectral Sunrise
3. Dimensions

Composed for Fifty for the Future: The Kronos Learning Repertoire
Satellites
Performance Instructions

String Quartet by Garth Knox (2015)
dedicated to the Kronos Quartet

1: Geostationary (3 mins)
2: Spectral Sunrise (4 mins)
3: Dimensions (4 mins 30)

Note for the players:

Although Satellites was conceived as an organic whole, the three movements can also be performed separately, or in twos, as a shorter item or an encore. When all three are performed, it is suggested to link the movements together, by playing the “Link” bar at the end of the first movement, and by holding the last note of the second movement on first violin until the viola enters to begin the last movement.
**Playing Instructions**

pizz. pont.

pizzicato near the bridge – dry, short and trebly

pizz nail

pizzicato with the nail – high pitched and brittle

+ first pizzicato as normal, then left hand finger slides up the string and plucks the string as it leaves it. In the meantime, the right hand has placed a finger on the string on the same note as the left hand did, so when the left hand plucks, we hear the same note again. Now the right hand finger slides up the string and plucks it as it leaves it, by which time the left hand finger is back in place on the original note. Repeat the action as many times as indicated.

"looping" pizz.

left hand pizzicato. To be heard clearly, the left hand finger should pull slightly to the side as it comes off the string. A slur in pizz indicates that the first note is plucked by the right hand, all other notes under the slur are executed by the LH

four finger pizz

plucking all four strings at the same time, one with each finger

"trembling harmonics" - an irregular vertical tremolo of the left hand, (like a vertical vibrato) on a nodal point. Alternating between harmonic pressure and even lighter pressure so the open string beneath is sometimes heard gently.

harmonic gliss

free glissando in harmonic pressure on the string indicated. This can be creative, with irregular movements of the hand and bow. The highest and lowest note are given as a guide, but are not absolute.

free downward harmonic glisses with alternate fingers (Spectral Sunrise: cello bar 17)

“walking” on the string with the first two fingers of the left hand in irregular alternation

multiphonics

breaking the sound to produce several unstable tones, using overpressure if necessary, but especially using vertical finger vibrato and varying bow speeds (fast light bow can be very effective, changing bow as often as necessary)

ricochet, as many bounces as comfortable in the time available

sideways

moving the bow sideways along the string from bridge to nut and back, producing a “swiping” sound (spazzolato – a “brushing” stroke)

Each group can decide which arrow indicates bridge to nut and which means nut to bridge, as long as players move the same way when playing together.

circular bowing

like sideways, but adding a circular movement in the arm to make circles on the string, keeping the bow pressure very light

col legno battuto (striking the string with the stick of the bow)

LH slap

Left Hand slap - closing the left hand suddenly on all the strings, producing a percussive sound. The strings remain blocked so the sound is dry

whip

swiping the bow through the air to produce a swishing sound like a whip. An upwards arrow indicates an upward stroke

"helicopter"

like circular bowing, but at the heel and with heavy bow pressure. Imitates the rotor blade noise of the helicopter
extreme tasto

loping
Spectral Sunrise

Violin I

Violin II

Viola

Cello

(how can play both strings, or alternate between the two)

(free, like a cadenza)

free downward harmonic glisses

with alternate fingers

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harmonic gliss.

va and ve not necessarily synchronised

harmonic gliss.

va and ve not necessarily synchronised

on D string

on A string

sul pont.

trembling' harmonics

with silences

short quiet viola cadenza

sul tasto

point to tasto

with silences

viola cadenza

short quiet

sul tasto

point to tasto

with silences

sul pont.

sul pont.

point to tasto

with silences

viola cadenza

short quiet

sul tasto

point to tasto

with silences

sul pont.

sul pont.

point to tasto

with silences

viola cadenza

short quiet

sul tasto

point to tasto

with silences

sul pont.

sul pont.

point to tasto

with silences

viola cadenza

short quiet

sul tasto

point to tasto

with silences

sul pont.

sul pont.

point to tasto

with silences

viola cadenza

short quiet

sul tasto

point to tasto

with silences

sul pont.
Spacewalk Scherzo (con rubato)

. -poco a poco cresc. -poco a poco cresc. -poco a poco cresc.

more and more vibrato on 2nd beat of every bar

short quiet violin cadenza with silences

subito

rubato

II

2nd vi solo till bar 60

sul pont. leggero

pizz.

3

short quiet

3

rubato

3

pizz.

arco

multiphonics

subito

pizz.

pizz.

pizz.

pizz.

pizz.

pizz.

pizz.

arco

sul ponticello violin cadenza

with silences

short quiet
if continuing, hold until viola begins "Dimensions"

slow and free
moño sul tasto

gradually losing pitch and replacing it with "white noise" bow sound (lifting the pressure off the LH fingers)

short quiet cello cadenzas with silences

ord.
vertical bounce at tip of bow

bridge behind

Sideways Dimension (until bar 33)

bridge behind

deposi
circular bowing

sideways

p

mf

col legno trem.

ord

clb

ord

clb

legno tratto

p

p

mf

f

arco ord

battuto

arco ord

battuto

clb

f

circular bowing

sideways legno

col legno
circular col legno

sideways legno
circular col legno

sideways con legno
circular col legno

sideways con legno
circular col legno

sideways con legno
circular col legno

sideways con legno
circular col legno

clb

circular col legno

clb

circular col legno

clb

circular col legno

clb

circular col legno

clb

circular col legno

clb
random reattacks
dim al niente

LH
slap

random reattacks
dim al niente

LH
slap

random reattacks
dim al niente

LH
slap

random reattacks
dim al niente

LH
slap

random reattacks
dim al niente

LH
slap
Garth Knox

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**Performance Instructions**

String Quartet by **Garth Knox** (2015)  
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3: Dimensions  (4 mins 30)

Note for the players:

Although *Satellites* was conceived as an organic whole, the three movements can also be performed separately, or in twos, as a shorter item or an encore. When all three are performed, it is suggested to link the movements together, by playing the “Link” bar at the end of the first movement, and by holding the last note of the second movement on first violin until the viola enters to begin the last movement.
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pizz nail  pizzicato with the nail – high pitched and brittle
+  left hand pizzicato. To be heard clearly, the left hand finger should pull slightly to the side as it comes off the string. A slur in pizz indicates that the first note is plucked by the right hand, all other notes under the slur are executed by the LH
"looping" pizz.  first pizzicato as normal, then left hand finger slides up the string and plucks the string as it leaves it. In the meantime, the right hand has placed a finger on the string on the same note as the left hand did, so when the left hand plucks, we hear the same note again. Now the right hand finger slides up the string and plucks it as it leaves it, by which time the left hand finger is back in place on the original note. Repeat the action as many times as indicated.

four finger pizz  plucking all four strings at the same time, one with each finger

"trembling harmonics"  - an irregular vertical tremolo of the left hand, (like a vertical vibrato) on a nodal point. Alternating between harmonic pressure and even lighter pressure so the open string beneath is sometimes heard gently.
harmonic gliss  free glissando in harmonic pressure on the string indicated. This can be creative, with irregular movements of the hand and bow. The highest and lowest note are given as a guide, but are not absolute.

free downward harmonic glisses with alternate fingers (Spectral Sunrise: cello bar 17)  “walking” on the string with the first two fingers of the left hand in irregular alternation

¼  quartertone lower (or higher, if the arrow points upwards). This is to reproduce the 11th harmonic of the string being played by the cello when it occurs, so tuning can be checked with the cello
multiphonics  breaking the sound to produce several unstable tones, using overpressure if necessary, but especially using vertical finger vibrato and varying bow speeds (fast light bow can be very effective, changing bow as often as necessary)

∞  ricochet, as many bounces as comfortable in the time available
sideways  moving the bow sideways along the string from bridge to nut and back, producing a “swiping” sound (spazzolato – a “brushing” stroke) Each group can decide which arrow indicates bridge to nut and which means nut to bridge, as long as players move the same way when playing together.

Circular bowing  like sideways, but adding a circular movement in the arm to make circles on the string, keeping the bow pressure very light

clb.  col legno battuto (striking the string with the stick of the bow)

LH slap  Left Hand slap - closing the left hand suddenly on all the strings, producing a percussive sound. The strings remain blocked so the sound is dry

whip  swiping the bow through the air to produce a swishing sound like a whip. An upwards arrow indicates an upward stroke

"helicopter“  like circular bowing, but at the heel and with heavy bow pressure. Imitates the rotor blade noise of the helicopter
Spectral Sunrise

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moving towards → sul pont.

Spacewalk Scherzo (con rubato)

short quiet violin cadenza sul ponticello with silences

if continuing, hold until viola begins

"Dimensions"
Dimensions

Vertical Dimension

$\frac{3}{8} = 100$

vertical bounce at tip of bow

vertical bounce on the string

vertical bounce at tip of bow

vertical bounce on the string

vertical bounce

Sideways Dimension (until bar 33)

N

sideways

"f"

"f"

"f"

"f"

"f"

"p"

"p"

"f"

sim.

moving towards
Circular Dimension

round bowing (until bar 50)
Binary Dimension

clb.  LH slap

x = clb. on damped strings

mp

sim.

vertical bounce

sideways

clb.  ord.  clb.  ord.  clb.  ord.  clb.  ord.

(circular bowing)

sideways

(circular bowing)

sideways

(circular col legno)

circular col legno

circular bowing

sideways con legno

circular bowing
circular col legno

vertical bounce

"helicopter"

random reattacks

slap
Garth Knox

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∞  ricochet, as many bounces as comfortable in the time available

\uparrow \downarrow \uparrow \downarrow  sideways  moving the bow sideways along the string from bridge to nut and back, producing a “swiping” sound (spazzolato – a “brushing” stroke)

Each group can decide which arrow indicates bridge to nut and which means nut to bridge, as long as players move the same way when playing together.

\circ \circ \circ \circ  circular bowing  like sideways, but adding a circular movement in the arm to make circles on the string, keeping the bow pressure very light

clb.  col legno battuto (striking the string with the stick of the bow)

\text{LH} \ \ \ \text{slap}  Left Hand slap - closing the left hand suddenly on all the strings, producing a percussive sound. The strings remain blocked so the sound is dry

\text{whip}  swiping the bow through the air to produce a swishing sound like a whip. An upwards arrow indicates an upward stroke

"helicopter"  like circular bowing, but at the heel and with heavy bow pressure. Imitates the rotor blade noise of the helicopter
96

LINK BAR
if continuing to
Spectral Sunrise
Dimensions

Vertical Dimension

\( \text{LH pizz and arco together} \)

Sideways Dimension

\( \text{sim.} \)

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Binary Dimension

col legno battuto  clb.

\( x = clb \) on damped strings

\[ \text{slap LH} \]

\[ \text{sideways con legno} \]

\( \text{circular col legno} \)

\( \text{arco ord gettato} \)

\( \text{whip!} \)

\[ \text{clb. ord.} \]

\[ \text{mf} \]

\[ \text{mp} \]

\( \text{LH slap} \)
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∞  
  ricochet, as many bounces as comfortable in the time available

\[\uparrow \downarrow \uparrow \downarrow\]  
  sideways  
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  Each group can decide which arrow indicates bridge to nut and which means nut to bridge, as long as players move the same way when playing together.

\[\uparrow \uparrow \uparrow \uparrow \uparrow \uparrow\]  
  circular bowing  
  like sideways, but adding a circular movement in the arm to make circles on the string, keeping the bow pressure very light

clb.  
  col legno battuto (striking the string with the stick of the bow)

LH  
  Left Hand slap - closing the left hand suddenly on all the strings, producing a percussive sound. The strings remain blocked so the sound is dry

\[\uparrow \]  
  whip  
  swiping the bow through the air to produce a swishing sound like a whip. An upwards arrow indicates an upward stroke

"helicopter"  
  like circular bowing, but at the heel and with heavy bow pressure. Imitates the rotor blade noise of the helicopter
"looping " pizz.

sul ponticello

moving to sul pont.
four finger pizz
sul ponticello  moving to ordinario by bar 68

moving to ordinario by bar 68

If continuing to "Spectral Sunrise",
turn page in bar 96. If not, play on and play first note of next page as final note. (½)
Spectral Sunrise

\[ \text{repeat ad lib} \]

bowing ad lib

\[ \text{atten.} \]

\[ \text{at tempo} \]

\[ \text{attacca} \]

\[ \text{va and vc not necessarily synchronised} \]

\[ \text{free, like a cadenza} \]

\[ \text{viola cadenza} \]

\[ \text{sul tasto with silences} \]

\[ \text{short quiet} \]

\[ \text{viola cadenza} \]

\[ \text{bowing ad lib} \]

\[ \text{repeat ad lib} \]

\[ \text{at tempo} \]

\[ \text{attacca} \]

\[ \text{at tempo} \]

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\[ \text{at tempo} \]
Spacewalk Scherzo (con rubato)

\( \text{\textbf{K}} \)

\( \text{\textbf{2}} \)

sul pont. \( \text{\textit{leggiero}} \)

\( \text{\textbf{5}} \)

\( \text{\textit{f}} \)

"trembling' harmonics"
Dimensions

Vertical Dimension

\( \text{Vertical bounce at tip of bow} \)

\( \text{bridge behind} \)

\( \text{bridge behind sim.} \)

\( \text{bridge behind} \)

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Garth Knox

Satellites (2015)

1. Geostationary
2. Spectral Sunrise
3. Dimensions

Composed for Fifty for the Future: The Kronos Learning Repertoire
*Satellites*

*Performance Instructions*

String Quartet by Garth Knox (2015)
dedicated to the Kronos Quartet

1: Geostationary (3 mins)
2: Spectral Sunrise (4 mins)
3: Dimensions (4 mins 30)

Note for the players:

Although *Satellites* was conceived as an organic whole, the three movements can also be performed separately, or in twos, as a shorter item or an encore. When all three are performed, it is suggested to link the movements together, by playing the “Link” bar at the end of the first movement, and by holding the last note of the second movement on first violin until the viola enters to begin the last movement.
Playing Instructions

pizz. pont. pizzicato near the bridge – dry, short and trebly
pizz nail pizzicato with the nail – high pitched and brittle
+ left hand pizzicato. To be heard clearly, the left hand finger should pull slightly to the side as it comes off the string. A slur in pizz indicates that the first note is plucked by the right hand, all other notes under the slur are executed by the LH

"looping" pizz. first pizzicato as normal, then left hand finger slides up the string and plucks the string as it leaves it. In the meantime, the right hand has placed a finger on the string on the same note as the left hand did, so when the left hand plucks, we hear the same note again. Now the right hand finger slides up the string and plucks it as it leaves it, by which time the left hand finger is back in place on the original note. Repeat the action as many times as indicated.

four finger pizz plucking all four strings at the same time, one with each finger

"trembling harmonics" - an irregular vertical tremolo of the left hand, (like a vertical vibrato) on a nodal point. Alternating between harmonic pressure and even lighter pressure so the open string beneath is sometimes heard gently.

harmonic gliss free glissando in harmonic pressure on the string indicated. This can be creative, with irregular movements of the hand and bow. The highest and lowest note are given as a guide, but are not absolute.

free downward harmonic glisses with alternate fingers (Spectral Sunrise: cello bar 17) “walking” on the string with the first two fingers of the left hand in irregular alternation

quarters tone lower (or higher, if the arrow points upwards). This is to reproduce the 11th harmonic of the string being played by the cello when it occurs, so tuning can be checked with the cello

multiphonics breaking the sound to produce several unstable tones, using overpressure if necessary, but especially using vertical finger vibrato and varying bow speeds (fast light bow can be very effective, changing bow as often as necessary)

∞ ricochet, as many bounces as comfortable in the time available

sideways moving the bow sideways along the string from bridge to nut and back, producing a “swiping” sound (spazzolato – a “brushing” stroke) Each group can decide which arrow indicates bridge to nut and which means nut to bridge, as long as players move the same way when playing together.

circular bowing like sideways, but adding a circular movement in the arm to make circles on the string, keeping the bow pressure very light

clb. col legno battuto (striking the string with the stick of the bow)

LH Left Hand slap - closing the left hand suddenly on all the strings, producing a percussive sound. The strings remain blocked so the sound is dry

whip swiping the bow through the air to produce a swishing sound like a whip. An upwards arrow indicates un upward stroke

"helicopter" like circular bowing, but at the heel and with heavy bow pressure. Imitates the rotor blade noise of the helicopter
Spectral Sunrise

\( \frac{j}{\text{ponticello moving to ord.}} \) cello solo until bar 18

\( \frac{q}{\text{moving to ord.}} \) extreme ponticello

\( \frac{f}{\text{cello solo until bar 18}} \)

\( \frac{\text{quarter tone sharp}}{\text{quarter note}} \)

\( \frac{\text{moving to ord.}}{\text{extreme ponticello}} \)

\( \frac{\text{free downward harmonic glisses with alternate fingers}}{\text{harmonic gliss with nail}} \)

\( \frac{\text{va and vc not necessarily synchronised}}{\text{harmonic gliss with nail}} \)

\( \frac{\text{11th harmonic on D string}}{\text{harmonic gliss with nail}} \)

\( \frac{\text{11th harmonic on A string}}{\text{trembling harmonics}} \)

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Spacewalk Scherzo (con rubato)

\( \bar{\frac{4}{4}} \) - \( \bar{\frac{3}{4}} \) - \( \bar{\frac{3}{2}} \) - \( \bar{\frac{2}{2}} \)

\( \text{p} \)

poco a poco cresc.

\( \text{L} \)

harmonic

\( \text{gliss. II} \)

\( \text{molto vibrato} \)

f

ff

\( \text{dim.} \)

\( \text{short quiet cello cadenza with silences} \)

gradually losing pitch and replacing it with a "white noise" bow sound (lifting the pressure off the LH fingers)

\( \text{M} \)

slow and free

molto sul tasto

\( \text{sul IV} \)

\( \text{sul II} \)

\( \text{sul I} \)

\( \text{p} \)
Dimensions

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