

PAUL EDDISON LEWIS

Xenon

Solo Cello + Electronics

2019

ca. 14'

www.eddisonstudios.com

Xenon (2019)

Paul Eddison Lewis

Duration ca. 14'

Eddison Music (ASCAP)

www.eddisonstudios.com

Dedicated to Eduard Teregulov

Instrumentation

Cello + Live Electronics

Program Notes

During the process of splitting uranium, the chemical element gives off extra neutrons and impacts a moderator, typically water. When in contact with the hydrogen nuclei, the neutrons start slowing down, eventually creating fission by hitting another uranium. This is the controlled chain reaction that takes place within a modern nuclear reactor. One method that will slow the reaction, is the use of control rods absorbing extra neutrons while others simply leak out of the reactor. This neutron dance is controlled to give a steady amount of fissions. Xenon is exceptional when absorbing neutrons. Known as a neutron poison, xenon becomes an alternative to controlling the chain reaction significantly decreasing the chances of calamity.

Although the piece *Xenon* itself is not a direct reflection of the literal neutron dance taken place within a reactor core, it is inspired by its process and the modern science that makes it possible. Effecting the population and environment, modern science plays a key role in our development towards the progression of energy consumption. It is vital to take into consideration the development of modern science over profit, creating a more environmental friendly, efficient, and cost effective livelihood for future generations. To quote a Greek proverb, "A society grows great when old men plant trees whose shade they know they shall never sit in."

Performance Notes

Technical Requirements:

The performance of this work requires the use of a Pure Data patch created by the composer. During the performance, the cellist must switch scenes using a foot pedal, preferably connected through bluetooth. When Pure Data is activated, the computer must have a way to listen and interact in real time with the performer, therefore the cellist needs to be mic'd and amplified using a balanced stereo output. For the best results, use a dynamic mic during live performance to avoid feedback problems.

Equipment List:

- Computer with an installation of the Pure Data program
- Audio interface
- Xenon Pure Data patch and file
- Pedal
- Dynamic instrument mic (ex. SM57)
- Stereo splitter cables.

Pure Data patch instructions:

When the Pure Data patch is in use, the performer will see the GUI screen within the program. The patch has already installed a saved mix and to recall the mix for a performance, simply press the button that says "recall"

Using a pedal, each time it is pressed will activate the next scene.

Below is a brief description of each scene when activated.

Scene 1: activates the reverb

Scene 2: plays the first fixed media

Scene 3: kills the reverb and turns on the two second delay

Scene 4: kills the first playback and the two second delay. Turns on reverb

Scene 5: Plays the electronic *cadenza* and turns off reverb

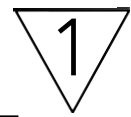
Scene 6: fades the electronic *cadenza*, fades in the last fixed media playback and turns activates both ten and twenty second delay.

Scene 7: shuts off all effects and playbacks.

At anytime the performer needs to go back to a scene, press "R" to reset the patch.

Violoncello + Electronics

accordatura, sempre



Xenon

Dedicated to Eduard Teregulov

Paul Eddison Lewis

Con Fuoco (♩=52)

(Written)

Violoncello

(Sounding)

6

(Wrtn)

Vc.

(Snd)

p sub.

fff

Rubato

Quasi Guitare Sempre

(Wrtn)

Vc.

(Snd)

pizz.

mf

fp — *ff* *fp* — *ff*

ff — *mf*

f

pizz.

rall.

(♩=52)

Xenon

2

12

arco

(Wrtn)

Vc.

(Snd)

fff *p sub.* *fff* *pp* *fff*

15

(Wrtn)

Vc.

(Snd)

p sub. *fff* *p sub.* *fff* *fff* *mp*

(slow gliss.)

18

(Wrtn)

Vc.

(Snd)

fff *fff* *fp* *fff* *p* *fff*

G.P.

(slow gliss.)

Xenon

(♩ = 46)

Vc.

Vc.

Vc.

Xenon

4

Vc.

(♩ = 52)

rit.

(♩ = 37)

Vc.

2

Vc.

Xenon

(♩ = 33)

41

mp sub. *ff*

3 3 3 3 3 3 3 3 3 5

6 6 6 6 6 6 6 6 6 6

Vc.

42

6 6 6 6 6 6 6 6 6 6

3 3 3 3 3 3 3 3 3 3

Vc.

43

Simile *V*

6 6 6 6 6 6 6 6 6 6

3 3 3 3 3 3 3 3 3 3

Simile

Vc.

Xenon

6

44

Vc.

This system contains measures 44 and 45. It features two staves of music. The upper staff has a treble clef and the lower staff has a bass clef. Both staves contain a sequence of eighth notes, with groups of three notes marked as triplets. Accents are placed above several notes. Measure numbers 44 and 45 are indicated at the beginning of the system.

45

Vc.

This system contains measures 45 and 46. It features two staves of music. The upper staff has a treble clef and the lower staff has a bass clef. Both staves contain a sequence of eighth notes, with groups of three notes marked as triplets. Accents are placed above several notes. Measure numbers 45 and 46 are indicated at the beginning of the system.

3

rall.

46

Vc.

This system contains measures 46 and 47. It features two staves of music. The upper staff has a treble clef and the lower staff has a bass clef. Both staves contain a sequence of eighth notes, with groups of three notes marked as triplets. Accents are placed above several notes. The tempo marking 'rall.' is written above the first staff. The system concludes with a piano dynamic marking 'pp' and a fermata over the final notes. Measure numbers 46 and 47 are indicated at the beginning of the system.

Xenon

(♩ = 40)

Vc.

ppp *mp*

Vc.

mf *ff*

Vc.

p sub. *ff sub.*

Xenon

8

50 *sul pont.*

Vc.

p sub. *fff* *p sub.*

50

51

51 *ord.*

Vc.

f *p sub.*

51

52

52

Vc.

ff sub. *p sub.*

52

53

Xenon

53

Vc.

ff *p sub.* *ff sub.*

54

Vc.

p *fff* *sul pont.*

55

Vc.

mf *ff* *ord.*

Xenon

10

56 *ord.*

Vc.

ff *mp*

ord.

This system contains measures 56 and 57. The upper staff is marked *ord.* and *ff*. The lower staff is marked *ord.* and *mp*. Both staves feature a sequence of eighth notes, with groups of six notes bracketed and labeled '6', and groups of three notes bracketed and labeled '3'. The key signature has one flat.

57

Vc.

mf *ff*

This system contains measures 57 and 58. The upper staff is marked *mf* and the lower staff is marked *ff*. Both staves feature a sequence of eighth notes, with groups of six notes bracketed and labeled '6', and groups of three notes bracketed and labeled '3'. The key signature has one flat.

58

Vc.

fff

This system contains measures 58 and 59. The upper staff is marked *fff*. The lower staff is marked *fff*. Both staves feature a sequence of eighth notes, with groups of six notes bracketed and labeled '6', and groups of three notes bracketed and labeled '3'. The key signature has one flat.

Xenon

Vc.

59

3

p sub.

3

ff sub.

3

Detailed description: This system contains measures 59 and 60. The top staff (treble clef) features a melodic line with triplets of eighth notes. The bottom staff (bass clef) provides a rhythmic accompaniment with triplets of eighth notes. Dynamics include *p sub.* and *ff sub.*. Measure 59 starts with a treble clef and a key signature of one sharp (F#). Measure 60 continues the pattern.

Vc.

60

p sub.

3

ff sub.

3

3

Detailed description: This system contains measures 60 and 61. The top staff (treble clef) continues the melodic line with triplets. The bottom staff (bass clef) continues the accompaniment with triplets. Dynamics include *p sub.* and *ff sub.*. Measure 60 starts with a bass clef and a key signature of one sharp (F#). Measure 61 continues the pattern.

Vc.

61

fff sub.

3

3

3

4

sul I

fff

Detailed description: This system contains measures 61 and 62. The top staff (treble clef) features a melodic line with triplets. The bottom staff (bass clef) provides a rhythmic accompaniment with triplets. Dynamics include *fff sub.* and *fff*. A section marker '4' is indicated by a downward-pointing triangle above the staff. The instruction 'sul I' is written below the staff. Measure 61 starts with a bass clef and a key signature of one sharp (F#). Measure 62 continues the pattern.

Xenon

12

62

Vc.

f < *fff* *f* < *fff* *fff* *fff* *f* *fp* < *fff*

(slow gliss.)

67

Vc.

5 Rubato

Electronics Cadenza (ca. 2'00")

Repeat ad libitum for 1'35"

6

69

Vc.

Repeat ad libitum until the scene completely changes

Grave rubato (♩=35)

mf *mp*

Xenon

73

Vc.

Measures 73-76: Violin part in 12/8 time. Measure 73 starts with a forte (*f*) dynamic. The music features a mix of eighth and sixteenth notes with various articulations and slurs. Measure 74 includes a fermata over a whole note. Measure 75 has a fermata over a half note. Measure 76 ends with a fermata over a whole note.

77

Vc.

Measures 77-82: Violin part in 12/8 time. Measure 77 begins with a fermata over a whole note. The music continues with eighth and sixteenth notes, including slurs and accents. Measure 82 ends with a fermata over a whole note.

83

Vc.

Measures 83-87: Violin part in 12/8 time. Measure 83 starts with a fermata over a whole note. Measure 84 has a fermata over a half note. Measure 85 has a fermata over a half note. Measure 86 has a fermata over a half note. Measure 87 ends with a fermata over a whole note. Dynamics include *mp*, *f*, *p*, and *n*. A triangle containing the number 7 is positioned above the final measure.

* for each ceasura, hold the whole note before it until the electronic loop begins.
Continue by syncing up with electronic loop.