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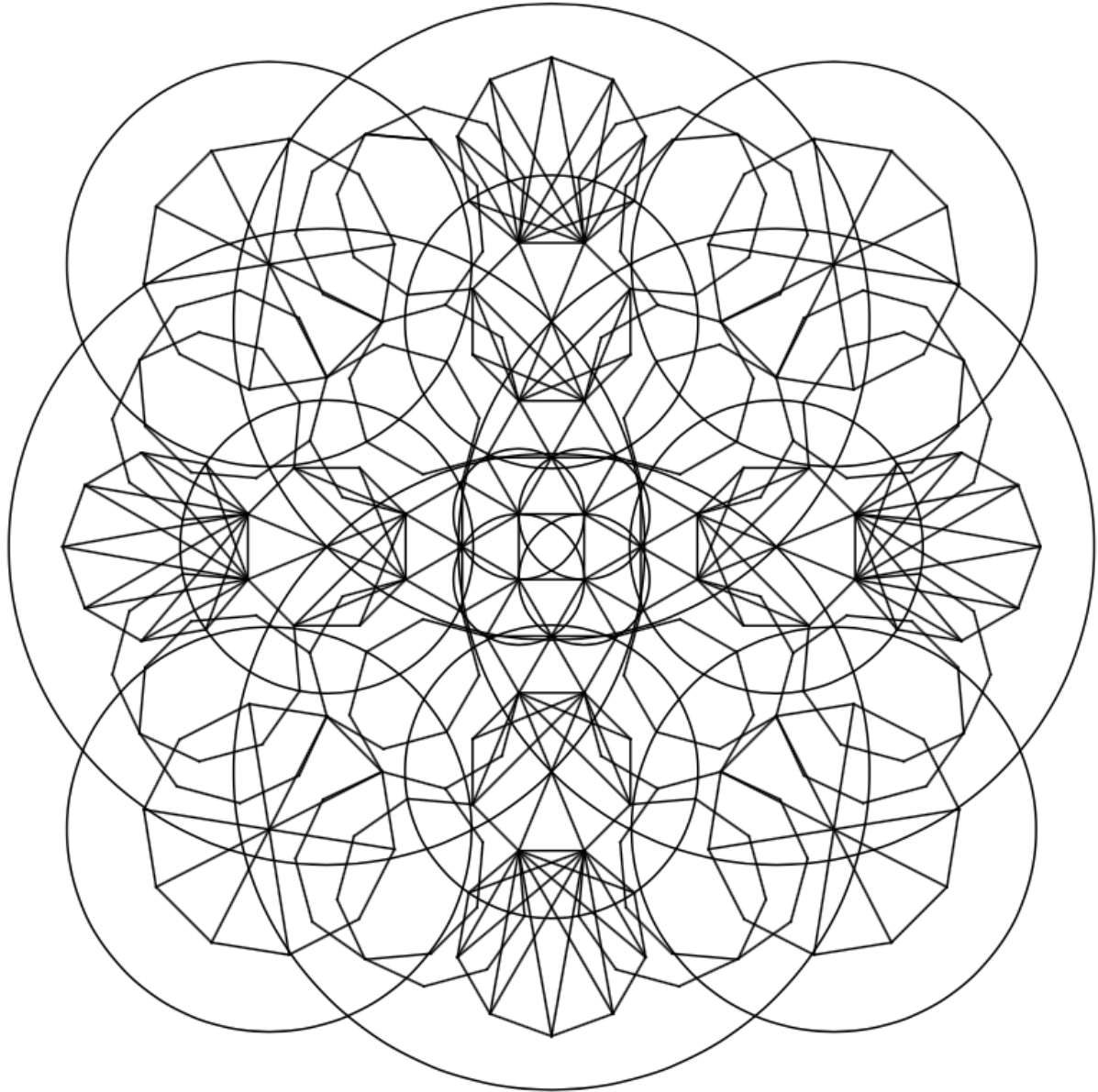
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Odd [s]Paces

for String Quartet



Full Score

Pedro Laranjeira Finisterra

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Odd [s]Paces (2021/2023)
for String Quartet

Full Score

Composition and Cover Illustration: Pedro Laranjeira Finisterra

Duration: ca. 6'

Concert Notes

Odd [s]Paces is a piece which explores the sensations of spending a day in a series of surrealistic scenarios. Starting from a morning in which most things look green(*ish*), running away from a black whole (*potentially, maybe... don't quote me on that...*) to, perhaps, meeting a deity which will at some point send you into a rotating hypercube. After spending some time inside that weird polytope (*uh, fancy word! Is it perhaps a polychoron? – uuuhhh, another fancy word!*) and feeling dizzy from trying to perceive space turning on itself (when the hypercube is in fact just rotating in all its four or more spatial dimensions (*yes, four dimensions or more!*)), you finally return to the place where you came from in time to see the sunset... but everything is now somehow made of plastic. Did you really return to the same place from this morning? Or did you end up in an alternative dimension? Well, who cares? It was just a dream after all (*Or was it?*) - and you wake up (*But do you, reeeaaally!?*).

The main materials used to bring to life these surrealistic scenes are a series of scales derived from alternative tuning systems which employ specific combinations of 'microtones': notes present in between the 12 notes of the western scale. Some polyrhythms and irregular time signatures are also used to help achieve these goals. While these materials may sound 'dissonant', 'uncoordinated' or 'out of tune/tempo' to some listeners, they may also present new expressive possibilities. Who knows, maybe some pretentious composer inspired by Adam Neely's Youtube videos on these resources might want to make a surrealistic piece with them...

...Oh, wait a minute...

Performance Notes

Microtonality and Intonation

As a starting point, this piece conceptually explores scales derived from the equal division of the $3/2$ "Just" perfect fifths of the violin and viola's open strings into 3, 4, and 5 equally distant parts. Because of the way these scales are derived, they do not repeat at the octave, but at the perfect fifth. Through musical notation, these scales are then freely approximated into 12 (semitones), 24 (semitones and quarter tones) and 48 notes per octave (semitones, quarter and eighth tones).

The beginning of this piece (until bar 22) explores the scale known as 4 Equal Divisions of $3/2$ ($4ED3/2$), notated in 48 notes per octave. This scale includes a variety of intervals, some corresponding to nearly just intervals (which some listeners may describe as ‘ringing intervals’) that can be found in the harmonic series, and other ‘inharmonic’ intervals (which some listeners may describe as ‘beating intervals’). With few exceptions, in terms of pitch, this passage only explores pitches found in this scale and is notated by using chromatic notation with quarter tones and eighth tones (see next page for accidentals). This microtonal notation is also complemented by ‘boxed’ written notes containing guidelines for the performers to intonate in relation to each other and themselves, most of the time by describing the interval to perform above or below long notes that are being played by the other performers. In general, intervals corresponding to a ratio are/can be perceived as ‘just/ringing’ intervals, and intervals not corresponding to a ratio are/can be perceived as ‘inharmonic/beating’ intervals. This second group of intervals can then be imagined as ‘out of tune’ versions of other ‘just’ intervals, either stretched or compressed, to sound purposely dissonant.

This same notational strategy is also used in two other passages (bars 70-75 and 84-87) to approximate subsets of the harmonic series.

From bar 22 onwards, the following microtonal explorations are as follows:

- bars 22 until 81: interchangeable approximations into 12 (closest semitones) and 24 notes per octave (closest semitone or quarter tone) of 4 Equal Divisions of $3/2$
- bars 36-37 & 79-81: Violin 1 plays a descending quarter tone approximation of 6 Equal Divisions of $3/2$ and Violin 2 plays a descending ‘7 Equal Divisions of $3/2$ ’ scale (which essentially equates to the 12 tone chromatic scale)
- bars 89-115: 5 Equal Divisions of $3/2$ approximated into 24 notes per octave
- bar 116 until the end: 2 and 3 Equal Divisions of $3/2$ interchangeably approximated into 12 and 24 notes per octave.

The sections above, given that they are not intended to sound close to just intonation, should be regarded by the performers within the framework of ‘semitone/quarter tone music’, and therefore their intonation is not as pre-determined as the mostly slow sections where eighth tones are used to represent just intonation intervals most of the time.

Accidentals

The score is notated with the following accidentals:

- Chromatic: \flat \sharp
- Quarter tones: \flat \sharp
- and Eighth tones: \downarrow \uparrow

Eighth tone accidentals may be mixed with chromatic accidentals to notate intervals which may not be notated simply through these accidentals alone. For example, a pure $5/4$ Major Third on top of a D is notated by a $F\sharp$ with a down arrow (see Violin 1 on bar 83).

Irrational Time Signatures

Bars 44 and 60 have irrational time signatures. These bars should be regarded as ‘tripletted 2/4 bars’ in which the last (bar 59, a 5/12 bar) or both (bar 44, a 2/6 bar) beats have been subtracted one triplet of an eighth tone. Both these bars include a ‘(3)’ above or below each beat to help identifying them visually in the score.

The image displays a musical score for four staves, divided into two systems. The first system covers bars 43-44, and the second system covers bars 58-59. The time signatures are 2/4, 2/6, 4/4, and 5/12. The score includes triplets and irrational time signatures, with '(3)' markings above or below beats to indicate the subtraction of a triplet of an eighth tone. The notation includes various rhythmic values, accidentals, and dynamic markings.

Figure 1. Bars 43-44 and 58-59.

Odd [s]Paces

Pedro Laranjeira Finisterra

The piece should start immediately after the performers finish tuning. Desirably, it should be imperceptible to the audience when the tuning process ends and the piece starts.

I. A sunrise in green

Lento $\text{♩} = 60$

Musical score for the first system of "I. A sunrise in green". The score is in 4/4 time and features four staves: Violin 1, Violin 2, Viola, and Violoncello. The tempo is Lento with a quarter note equal to 60 beats per minute. The key signature has one flat (B-flat). The score includes dynamic markings of *p* and *mp*, and performance instructions such as "non vib." and "0". A box labeled "A" is placed above the first measure of the Violin 1 staff.

Musical score for the second system of "I. A sunrise in green", starting at measure 6. The score continues with Violin 1, Violin 2, Viola, and Violoncello. It includes several annotations in boxes:

- 11/4 "Undecimal 4th" above Vc. G or 11/9 "Neutral 3rd" above Vl.2 A
- 11/4 open E will sound dissonant with Vl.2 low B
- 5/3 Natural M6 above D string or 5/2 Natural M10 above Vc. G. Vl.1 open E will sound dissonant
- P5 below Vln.1 Expressivo
- stretched P8 above Vc.

The score includes dynamic markings of *mp* and *mf*, and performance instructions such as "Expressivo".

B

10

Vln 1

Vln 2

Vla

Vc.

5/2 M10 above Vc. C

Expressivo

11/9 "Neutral 3rd" above Vc. G

P4 above Vc.

stretched P4 above Vc.

3/2 P5 above Vc. G

9/4 M10 above Vc. C

mf

f

mf

mf

mf

14

Vln 1

Vln 2

Vla

Vc.

5/2 M10 above Vc. G
E open string will sound dissonant w/ your "low B" & Vln.2 "low E"

stretched P8 above Vc. G

11/4 "Undecimal 4th" above Vc. C
or 11/9 "Neutral 3rd" above Vla. D

5/2 M10 above Vc. C
Ignore dissonant Vln.1 E

low E: 572 "Natural" Major 3rd above Vc. C
or 5/3 "Natural" Major 6th above Vc. G
low E will sound dissonant with Vl.1 open E

mf

f

ppp

ff

f

ppp

ff

f

ppp

ff

f

ppp

ff

non vib.

C

5/3 M6 above Vla. D
or 5/2 M10 above Vc. G

3/2 P5 above Vl.2 F#

Standard 12/24 Notes per octave
intonation from here onwards

pizz.

arco

Vln 1

pp

mf

p

3

3/4 P4 below Vl.1
or 5/3 M6 above Vc. G

11/9 "Neutral 3rd" above Vla.
or 11/6 "Neutral 7th" above Vc. G

Standard 12/24 Notes per octave
intonation from here onwards

(P5)

Vln 2

p

mp

p

mp

p

Standard 12/24 Notes per octave
intonation from here onwards

arco

Vla

pp

mf

pizz.

arco

Vc.

pp

mf

pizz.

arco

D

Vln 1

f

arco

pp

Vln 2

pizz.

arco

mp

f

mp < *mf*

mp < *mf*

p

p <

Vla

pizz.

arco

f

pp

Vc.

pizz.

arco

f

p

♩ = ♩

Musical score for measures 31-35, featuring Violin 1 (Vln 1), Violin 2 (Vln 2), Viola (Vla), and Violoncello (Vc.). The score is in 4/4 time and includes dynamic markings such as *mp*, *mf*, *p*, and *pp*. Measure 31 is marked with a rehearsal number 31. The piece concludes with a double bar line and a final measure with a 4+4+3/16 time signature.

E II. (Not) A Blackhole? (...Depends on whose perspective...)

♩ = 120

Musical score for measures 36-39, featuring Violin 1 (Vln 1), Violin 2 (Vln 2), Viola (Vla), and Violoncello (Vc.). The score is in 4/4 time and includes dynamic markings such as *f* and *pizz.*. Measure 36 is marked with a rehearsal number 36. The piece concludes with a double bar line and a final measure with a 2/4 time signature.

Standard 12/24 Notes per octave intonation from here onwards

F

39

Vln 1

Vln 2

Vla

Vc.

arco

f sempre

f sempre

f sempre

arco

f sempre

42

Vln 1

Vln 2

Vla

Vc.

arco

f sempre

G

46

Vln 1

Vln 2

Vla

Vc.

arco

(f)

(f)

(f)

arco

(f)

49

Vln 1

Vln 2

Vla

Vc.

52

Vln 1

Vln 2

Vla

Vc.

55

H

Vln 1

Vln 2

Vla

Vc.

57

Vln 1

Vln 2

Vla

Vc.

59

Vln 1

Vln 2

Vla

Vc.

61

I

Vln 1

Vln 2

Vla

Vc.

mf *f* *p*

63

Vln 1
Vln 2
Vla
Vc.

f

mf *f*

Measures 63-64. Vln 1, 2, and Vla play a rhythmic pattern of eighth notes. Vc. has a low note in measure 63 and a chord in measure 64. Dynamics include *f* and *mf*.

65

Vln 1
Vln 2
Vla
Vc.

Measures 65-67. Vln 1, 2, and Vla continue with rhythmic patterns. Vc. has rests. Dynamics include *f* and *mf*.

J

(In the presence of a deity?)

68

Vln 1
Vln 2
Vla
Vc.

p

mf *p*

7/6 above Vla. G
7/2 above Vlc. C

M10 above Vc. C

Measures 68-70. Vln 1, 2, and Vla play a rhythmic pattern. Vc. has a low note in measure 68 and a chord in measure 70. Dynamics include *p* and *mf*. Performance instructions are provided for Vln 2 and Vc. C.

72

Vln 1

Vln 2

Vla

Vc.

f *pp* *f* *pp* *f* *mf* *pp*

Return to standard 12/24 Notes per octave intonation

Return to standard 12/24 Notes per octave intonation

77

Vln 1

Vln 2

Vla

Vc.

pp *pp* *pp* *pp*

79

K

Vln 1

Vln 2

Vla

Vc.

f *pizz.* *f* *arco* *f* *pizz.* *f* *pizz.* *f*

L

Musical score for measures 81-82. The score is in 4/4 time and features four staves: Vln 1, Vln 2, Vla, and Vc. Measure 81 contains a sixteenth-note triplet in Vln 1 and Vln 2, and a quarter-note triplet in Vla. Measure 82 features a sixteenth-note triplet in Vln 1 and Vln 2, and a sixteenth-note triplet in Vla. Dynamics include *f* and *mf*. Performance instructions include *pizz.* and *arco*.

Musical score for measures 83-85. The score is in 4/4 time and features four staves: Vln 1, Vln 2, Vla, and Vc. Measure 83 contains a quarter-note triplet in Vln 1 and Vln 2, and a quarter-note triplet in Vla. Measure 84 contains a quarter-note triplet in Vln 1 and Vln 2, and a quarter-note triplet in Vla. Measure 85 features a quarter-note triplet in Vln 1 and Vln 2, and a quarter-note triplet in Vla. Dynamics include *mf* and *f*. Performance instructions include *arco* and *pizz.*. A box above Vln 1 contains the text "5/4 above Vlc. & Vla. D". A box above Vln 2 contains the text "7/4 above Vlc. & Vla. D". A box above Vln 1 and Vln 2 contains the text "rit....." and "G#: 11/4 above Vlc. D or 11/9 above Vl.2 E".

Musical score for measures 86-88. The score is in 4/4 time and features four staves: Vln 1, Vln 2, Vla, and Vc. Measure 86 contains a quarter-note triplet in Vln 1 and Vln 2, and a quarter-note triplet in Vla. Measure 87 contains a quarter-note triplet in Vln 1 and Vln 2, and a quarter-note triplet in Vla. Measure 88 features a quarter-note triplet in Vln 1 and Vln 2, and a quarter-note triplet in Vla. Dynamics include *mf* and *mp*.

M III. (A strange) Interlude: Inside a hypercube...
Lamentoso ♩ = 60

89 Return to standard 12/24 Notes per octave intonation non vib.

Return to standard 12/24 Notes per octave intonation

non vib.

mf

mp

Vln 1

Vln 2

Vla

Vc.

Detailed description: This system contains measures 89-93. It features four staves: Vln 1, Vln 2, Vla, and Vc. Measure 89 has a box above the Vln 1 staff with the text 'Return to standard 12/24 Notes per octave intonation non vib.' and a box below the Vln 2 staff with 'Return to standard 12/24 Notes per octave intonation'. The Vln 1 staff starts with a *mf* dynamic. The Vc. staff has a *mp* dynamic. The time signature changes from 3/4 to 5/4, then 4/4, 3/4, and 4/4.

94 non vib.

mf

non vib.

pp *mf*

Vln 1

Vln 2

Vla

Vc.

Detailed description: This system contains measures 94-98. The Vln 1 staff has a *mf* dynamic and 'non vib.' marking. The Vln 2 staff has a *mf* dynamic. The Vla staff has a *pp* dynamic that changes to *mf*. The Vc. staff has a *pp* dynamic. The time signature changes from 5/4 to 4/4, 3/4, and 5/4.

99 **N** legato

f

non vib. legato

f

non vib. arco legato

f

f

Vln 1

Vln 2

Vla

Vc.

Detailed description: This system contains measures 99-103. A box labeled 'N' is above the Vln 1 staff. The Vln 1 staff has a *f* dynamic and 'legato' marking. The Vln 2 staff has a *f* dynamic and 'non vib. legato' marking. The Vla staff has a *f* dynamic and 'non vib. arco legato' marking. The Vc. staff has a *f* dynamic. The time signature changes from 3/8 to 4/4, 3/4, 4/4, and 4/4.

104 $\text{♩} = \text{♩}$

Vln 1
Vln 2
Vla
Vc.

108 $\text{♩} = 80$

O

Vln 1
Vln 2
Vla
Vc.

112 rit.....

Vln 1
Vln 2
Vla
Vc.

P IV. A sunset in plastic
Lento ♩ = 60

116

Vln 1
mf

Vln 2
p *mf* *pp* *mf > p* *mf > p* *mf*

Vla
p *mf* *mf > p* *mf > p* *mf*

Vc.
p *mf* *mf > p* *mf > p* *mf*

123

Vln 1
mp *f*

Vln 2
mp *f*

Vla
mp *f*

Vc.
mp *mf* *ppp*

129

Vln 1
ppp (as close as possible)

Vln 2
ppp (as close as possible)

Vla
ppp (as close as possible)

Vc.
ff