

Self-Perpetuum

[And other human afflictions]

For wind ensemble, string quartet and piano

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Flute
Oboe
B♭ Clarinet
Bassoon

Horn (in F)
Tenor Trombone

Piano

String Quartet

Score in C

Duration: ca. 4' 44"

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This is a single-movement work, composed over a stuttering period of 24 months, that passed through a variety of shapes and identities before settling into this concise form for small chamber ensemble: flute, oboe, Bb clarinet, bassoon, horn, trombone, piano and string quartet. The initial structural idea emerged from previous compositional research using the Fibonacci sequence and Golden ratio to shape pacing, form and proportion. In this piece, individual strands of material are introduced within a progressive-cycle-form, working towards a logical conclusion in a crescendo of texture, density and intensity. This crescendo happens one third of the way through the movement, and, from this point on, the material dissolves vertically (and dynamically) across the timbres of the ensemble. The first third of the piece highlights individual instruments and heterogeneous timbres, through repeating extended linear musical units of melody and counter-melody, set against a 'pulse in trio' to create a collective 12-tone language. The latter parts of the score explore the vertical (harmonic) properties and shared (homogeneous) sonorities of the ensemble, within a tonal (modal) language predominantly featuring shorter musical units of phrase and motif. Drifting between Gb and natural within a static, 8-tone, 'tonal' language creates false modulations between Db and Ab Major (Bb and F minor), blurs the tonal centre and accentuates passing modal gestures.

The flute introduces a nine-note unordered row in an opening solo, which provides the primary strand of pitch material:

C	Db	Eb	E	F	Gb	Ab	A	Bb
0	1	3	4	5	6	8	9	10

The division of this row within the compositional process suggests an extended 'near-tonality', reminiscent of the work of Lutosławski in *Łaricuch III (Chain III)* for orchestra (1986). The flute primarily plays the notes of a Db Major scale, but the focus of pitch-contour revolves around C (C Locrian mode): C-Db-Eb-F-Gb-Ab-Bb-C. Written from Bb, the complete row looks similar to Bb minor: Bb-C-Db-Eb-(E)-F-Gb-Ab-(A)-Bb. If we ignore the E natural, we read a traditional Bb minor scale with the option of switching between Aeolian and Harmonic modes. The tritone is present whichever way we read the sequence. The F was grouped with the notes A and E, to suggest an F Major 7th chord (no 5th). This three-note subset formed a relationship with similar subsets from the following rows to become the focus of vertical harmony later in the piece.

The clarinet enters the 2nd cycle with a counter-melody and an alternate nine-note unordered row. This row (D Major/dominant – minor/dorian flavour) contains the complement for ALL pitch-rows in the piece.

C	C#	D	E	F	F#	G	A	B
0	1	2	4	5	6	7	9	11

The clarinet exists within its own musical plain for the duration of the cyclic repetitions, but the notes G-B-D complete the total chromatic when added to the flute row and, through being distinctive to the clarinet, introduce a way to reference quasi-tonality and pseudo-functional harmony (G-B-D from this row came to be associated with F-A-E from the flute row and Eb-Ab-Bb from the oboe row). A gestural pizzicato solo from violoncello enters in the third cycle whilst the bassoon and piano provide a coordinated pulse. The cello strengthens the coordinated pulse in the fourth cycle, where the pizzicato gestures are passed to the viola and a further linear strand of counter-melody is added to the contrapuntal texture, first in harmonised duet on oboe and violin (4th cycle) and then by the oboe alone (5th cycle). The entire ensemble is finally engaged during the fifth cycle, and, whilst the trombone and horn exchange short 'statement and response' phrases, the sixth cycle culminates in a crescendo of cacophonous polyphonic heterophony and composite timbres.

The oboe enters the fourth cycle with a second counter-melody:

C	Db	Eb	F	Gb	G	Ab	A	Bb
0	1	3	5	6	7	8	9	10

The oboe row, read from Bb is actually a conventional minor scale, as the additional (seemingly atonal) notes G and A allow the choice of using aeolian, melodic, jazz-melodic and harmonic forms of minor scale. The various rows and linear strands combine to introduce 'shared', or, 'common' material that becomes the primary focus of the ensemble writing. These shared pitches and subsets strongly influence harmonic structure as the movement evolves, and so, (through a process of natural selection) the harmony and chord voicing is eventually dominated by whole-tone, minor third and (especially) perfect-fourth intervals (2, 3, 5). Further reference is made to the Fibonacci sequence in some of the extended chord spellings: 2, 3, 5, 8 (C, D, F, Bb, Gb): 2, 3, 5, 8, 13 (C, D, F, Bb, Gb, Db): 2, 3, 5, 8, 13, 21 (C, D, F, Bb, Gb, Db, A).

In conclusion, this music is an energetic exploration of the opening material, within virtuosic, but legible rhythms, working through an initial progressive-cycle-form (the conception of which evolved further through reference to Lutosławski's chain-forms), before morphing out of cacophonous crescendo into synchronised polyphonic rhythms, syncopation, canonic gestures, lyrical interludes and a collective soundworld of timbre, harmony, modality and tonality. The quasi-tonal approach to 8, 9 and 12-tone pitch organisation featured in this work produces a soundworld comparative to that explored through the extended pitch-language of Debussy, Schoenberg, Ravel, Bartók, Stravinsky and Copland (amongst many others) during the early part of the C20th, but the character (and composition) of the music is an obvious product of the C21st.

Linear Row Pitch-Matrices

In the interest of reproducible process, matrices for each of the five linear strands of pitch-material (rows) are listed below:

Flute (Primary) Matrix: To complete the total chromatic with P0: G-B-D (7-11-2) (0-4-7) [Forte 3-11B, Major Chord]: Complement pitches can be found in the clarinet row.

	I0	I1	I3	I4	I5	I6	I8	I9	I10	
P0	C	Db	Eb	E	F	Gb	Ab	A	Bb	R0
P11	B	C	D	Eb	E	F	G	Ab	A	R11
P9	A	Bb	C	Db	D	Eb	F	Gb	G	R9
P8	Ab	A	B	C	Db	D	E	F	Gb	R8
P7	G	Ab	Bb	B	C	D	Eb	E	F	R7
P6	Gb	G	A	Bb	B	C	D	Eb	E	R6
P4	E	F	G	Ab	A	Bb	C	Db	D	R4
P3	Eb	E	Gb	G	Ab	A	B	C	Db	R3
P2	D	Eb	F	Gb	G	Ab	Bb	B	C	R2
	R10	R11	R13	R14	R15	R16	R18	R19	R10	

	I0	I1	I3	I4	I5	I6	I8	I9	I10	
P0	0	1	3	4	5	6	8	9	10	R0
P11	11	0	2	3	4	5	7	8	9	R11
P9	9	10	0	1	2	3	5	6	7	R9
P8	8	9	11	0	1	2	4	5	6	R8
P7	7	8	10	11	0	2	3	4	5	R7
P6	6	7	9	10	11	0	2	3	4	R6
P4	4	5	7	8	9	10	0	1	2	R4
P3	3	4	6	7	8	9	11	0	1	R3
P2	2	3	5	6	7	8	10	11	0	R2
	R10	R11	R13	R14	R15	R16	R18	R19	R10	

Clarinet (Complement) Matrix: To complete the total chromatic with P0: Ab-Bb-Eb (9-10-3) (0-2-7) [Forte 3-9 'mirror-set', Quartal Trichord]: Complement pitches can be found in ALL other pitch-rows.

	I0	I1	I2	I4	I5	I6	I7	I9	I11	
P0	C	C#	D	E	F	F#	G	A	B	R0
P11	B	C	C#	Eb	E	F	F#	Ab	Bb	R11
P10	Bb	B	C	D	Eb	E	F	G	A	R10
P8	Ab	A	Bb	C	C#	D	Eb	F	G	R8
P7	G	Ab	A	B	C	C#	D	E	F#	R7
P6	F#	G	Ab	Bb	B	C	C#	Eb	F	R6
P5	F	F#	G	A	Bb	B	C	D	E	R5
P3	Eb	E	F	G	Ab	A	Bb	C	D	R3
P1	C#	D	Eb	F	F#	G	Ab	Bb	C	R1
	R10	R11	R12	R14	R15	R16	R17	R19	R11	

	I0	I11	I2	I4	I5	I6	I7	I9	I11	
P0	0	1	2	4	5	6	7	9	11	R0
P11	11	0	1	3	4	5	6	8	10	R11
P10	10	11	0	2	3	4	5	7	9	R10
P8	8	9	10	0	1	2	3	5	7	R8
P7	7	8	9	11	0	1	2	4	6	R7
P6	6	7	8	10	11	0	1	3	5	R6
P5	5	6	7	9	10	11	0	2	4	R5
P3	3	4	5	7	8	9	10	0	2	R3
P1	1	2	3	5	6	7	8	10	0	R1
	R10	R11	R12	R14	R15	R16	R17	R19	R11	

Oboe Matrix: To complete the total chromatic with P0: D-E-B (2-4-11) (0-2-9): Complement pitches can be found in the clarinet row.

	I0	I1	I3	I5	I6	I7	I8	I9	I10	
P0	C	Db	Eb	F	Gb	G	Ab	A	Bb	R0
P11	B	C	D	E	F	Gb	G	Ab	A	R11
P9	A	Bb	C	D	Eb	E	F	Gb	G	R9
P7	G	Ab	Bb	C	Db	D	Eb	E	F	R7
P6	Gb	G	A	B	C	Db	D	Eb	E	R6
P5	F	Gb	Ab	Bb	B	C	Db	D	Eb	R5
P4	E	F	G	A	Bb	B	C	Db	D	R4
P3	Eb	E	Gb	Ab	A	Bb	B	C	Db	R3
P2	D	Eb	F	G	Ab	A	Bb	B	C	R2
	R10	R11	R13	R15	R16	R17	R18	R18	R10	

	I0	I1	I3	I5	I6	I7	I8	I9	I10	
P0	0	1	3	5	6	7	8	9	10	R0
P11	11	0	2	4	5	6	7	8	9	R11
P9	9	10	0	2	3	4	5	6	7	R9
P7	7	8	10	0	1	2	3	4	5	R7
P6	6	7	9	11	0	1	2	3	4	R6
P5	5	6	8	10	11	0	1	2	3	R5
P4	4	5	7	9	10	11	0	1	2	R4
P3	3	4	6	8	9	10	11	0	1	R3
P2	2	3	5	7	8	9	10	11	0	R2
	R10	R11	R13	R15	R16	R17	R18	R18	R10	

Bassoon, Piano and Cello (Coordinated Pulse) Matrix: To complete the total chromatic with P0: E-A-B (4-9-11) (0-5-7): Complement pitches can be found in the clarinet row.

Note: G-C#-D can only be found in the right-hand piano chords, G-D only appear in the fifth cycle. These pitches can be found in the clarinet row.

	I0	I1	I2	I3	I5	I6	I7	I8	I10	
P0	C	Db	D	Eb	F	Gb	G	Ab	Bb	R0
P11	B	C	Db	D	E	F	Gb	G	A	R11
P10	Bb	B	C	Db	Eb	E	F	Gb	Ab	R10
P9	A	Bb	B	C	D	Eb	E	F	G	R9
P7	G	Ab	A	Bb	C	Db	D	Eb	F	R7
P6	Gb	G	Ab	A	B	C	Db	D	E	R6
P5	F	Gb	G	Ab	Bb	B	C	Db	Eb	R5
P4	E	F	Gb	G	A	Bb	B	C	D	R4
P2	D	Eb	E	F	G	Ab	A	Bb	C	R2
	R10	RI1	RI2	RI3	RI5	RI6	RI7	RI8	RI10	

	I0	I1	I2	I3	I5	I6	I7	I8	I10	
P0	0	1	2	3	5	6	7	8	10	R0
P11	11	0	1	2	4	5	6	7	9	R11
P10	10	11	0	1	3	4	5	6	8	R10
P9	9	10	11	0	2	3	4	5	7	R9
P7	7	8	9	10	0	1	2	3	5	R7
P6	6	7	8	9	11	0	1	2	4	R6
P5	5	6	7	8	10	11	0	1	3	R5
P4	4	5	6	7	9	10	11	0	2	R4
P2	2	3	4	5	7	8	9	10	0	R2
	R10	RI1	RI2	RI3	RI5	RI6	RI7	RI8	RI10	

Coordinated Pulse Matrix: To complete the total chromatic with P0: C#-D-E-G-A-B (1-2-4-7-9-11) (0-1-3-6-8-10): Complement pitches can be found in the clarinet row

	I0	I3	I5	I6	I8	I10	
P0	C	Eb	F	Gb	Ab	Bb	R0
P9	A	C	D	Eb	F	G	R9
P7	G	Bb	C	Db	Eb	F	R7
P6	F#	A	B	C	D	E	R6
P4	E	G	A	Bb	C	D	R4
P2	D	F	G	Ab	Bb	C	R2
	R10	RI3	RI5	RI6	RI8	RI10	

	I0	I3	I5	I6	I8	I10	
P0	0	3	5	6	8	10	R0
P9	9	0	2	3	5	7	R9
P7	7	10	0	1	3	5	R7
P6	6	9	11	0	2	4	R6
P4	4	7	9	10	0	2	R4
P2	2	5	7	8	10	0	R2
	R10	RI3	RI5	RI6	RI8	RI10	

Trombone and Horn Matrix: To complete the total chromatic with P0: D-E-F#-A-B (2-4-6-9-11) (0-2-4-7-9) [Forte 5-35 'black key' Quartal Pentamirror]: Complement pitches can be found in the clarinet row.

Trombone and horn share an Eb Major/C minor scale as a 7-note unordered row, but tend to favour Ab, therefore playing Ab Lydian. This row/scale is contained within the oboe and 'coordinated pulse' pitch-rows.

	I0	I1	I3	I5	I7	I8	I10	
P0	C	Db	Eb	F	G	Ab	Bb	R0
P11	B	C	D	E	F#	G	A	R11
P9	A	Bb	C	D	E	F	G	R9
P7	G	Ab	Bb	C	D	Eb	F	R7
P5	F	Gb	Ab	Bb	C	Db	Eb	R5
P4	E	F	G	A	B	C	D	R4
P2	D	Eb	F	G	A	Bb	C	R2
	R10	RI1	RI3	RI5	RI7	RI8	RI10	

	I0	I1	I3	I5	I7	I8	I10	
P0	0	1	3	5	7	8	10	R0
P11	11	0	2	4	6	7	9	R11
P9	9	10	0	2	4	5	7	R9
P7	7	8	10	0	2	3	5	R7
P5	5	6	8	10	0	1	3	R5
P4	4	5	7	9	11	0	2	R4
P2	2	3	5	7	9	10	0	R2
	R10	RI1	RI3	RI5	RI7	RI8	RI10	

Note: The individual rows are initially juxtaposed horizontally (stacked above and below each other) in linear strands, but start to interact and overlap vertically, forming harmony (links and chains) across the ensemble. Shared pitches between the pitch-rows and the highlighted three-note subsets (discussed earlier) served as primary vehicles for harmonic function. The string quartet provides increasing vertical (and timbral) stability as the opening cycles (and the movement) progress.

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[and other human afflictions]
for wind ensemble, string quartet and piano

Score in C

Ian Percy

And so the cycle begins (again)...

$\downarrow = 52$ poco accel. [math>\downarrow = 60 poco accel. [math>\downarrow = 72 A $\downarrow = 52$ poco accel. [math>\downarrow = 60 poco accel. [math>\downarrow = 72 $\downarrow = 60$ a tempo

Flute solo molto rubato 4/4 p mp ff mp poco rubato 3/4 2/4 4/4

Oboe 3/4 2/4 4/4

Bb Clarinet 3/4 2/4 4/4

Bassoon 3/4 2/4 4/4

Horn 3/4 2/4 4/4

Tenor Trombone 3/4 2/4 4/4

Piano 3/4 2/4 4/4 p

And so the cycle begins (again)...

$\downarrow = 52$ poco accel. [math>\downarrow = 60 poco accel. [math>\downarrow = 72 A $\downarrow = 52$ poco accel. [math>\downarrow = 60 poco accel. [math>\downarrow = 72 $\downarrow = 60$ a tempo

Violin I 4/4 3/4 2/4 4/4

Violin II 3/4 2/4 4/4

Viola 3/4 2/4 4/4

Violoncello 3/4 2/4 4/4 pizz.

$\downarrow = 52$ mp

B $\downarrow = 60$ With increased excitement and gathering momentum...

poco accel.

$\downarrow = 72$ a tempo

C Waves of momentum increasing in density...

poco accel.

$\downarrow = 72$

Fl. 4 4
 Ob. 4 4
 Cl. 4 4
 Bsn. 4 4

Hn. 4 4
 Tbn. 4 4
 Pno. 4 4

B $\downarrow = 60$ With increased excitement and gathering momentum...

poco accel.

$\downarrow = 72$ a tempo

C Waves of momentum increasing in density...

poco accel.

$\downarrow = 72$

Vln.I 4 4
 Vln.II 4 4
 Vla. 4 4
 Vc. 4 4

D ♩ = 60 With increasing texture and intensity...

poco accel. ♩ = 72

E A final cycle: A crescendo of activity and a cacophony of excitement...

Musical score for Flute (Fl.), Oboe (Ob.), Clarinet (Cl.), Bassoon (Bsn.), Horn (Hn.), Trombone (Tbn.), Piano (Pno.), and Violin I (Vln.I). The score consists of two systems of music. The first system (measures 19-20) starts at ♩ = 60 with 'poco rubato' and 'coordinated pulse (trio)' markings. It includes dynamic changes from *mp* to *ff*, and performance instructions like '[tone trill]' and '[pitch-bend]'. The second system begins at ♩ = 72 with 'poco accel.' and 'a tempo' markings, featuring 'soli (duo) response' and 'quartet response' sections. The piano part has 'coordinated pulse (trio)' markings.

D ♩ = 60 With increasing texture and intensity...

poco accel. ♩ = 72

E A final cycle: A crescendo of activity and a cacophony of excitement...

Musical score for Violin II (Vln.II), Viola (Vla.), and Cello (Vc.). The score continues the two-system structure. The first system uses 'soli (duo) response' and 'molto rubato' markings. The second system uses 'poco rubato', 'pizz.', 'arco', and 'coordinated pulse (trio)' markings. Both systems include dynamic changes from *mp* to *ff*, and performance instructions like '[tone trill]' and '[solo (duo)]'. The violins play 'solo' and 'quartet response' parts, while the cellos provide 'soli (duo)' responses.

poco accel. [♩ = 72]

Fl.

Ob.

Cl.

Bsn.

Hn.

Tbn.

Pno.

This section of the score spans measures 26 to 35. It features a variety of woodwind instruments (Flute, Oboe, Clarinet, Bassoon) and brass (Horn, Trombone). The piano part is prominent, especially in the lower half of the page. The instrumentation includes Flute, Oboe, Clarinet, Bassoon, Horn, Trombone, Piano, and various strings. The dynamics range from *ff* to *p*, with specific markings like *poco rubato*, *duo phrase*, *soli (duo)*, *soli (quad)*, and *[tone trill]*. Measure 26 starts with a dynamic of *ff*. Measures 27-28 show a transition with *p* and *mp*. Measures 29-30 feature *p*, *mp*, and *p* dynamics. Measures 31-32 show *p*, *mp*, and *p*. Measures 33-34 show *p*, *mp*, and *p*. Measures 35 end with *p*.

G Subtle change in mood [quasi-blues]...

poco accel. [♩ = 72]

Vln.I

Vln.II

Vla.

Vc.

This section of the score spans measures 26 to 35. It features a variety of string instruments (Violin I, Violin II, Cello, Double Bass) and brass (Trombone). The instrumentation includes Violin I, Violin II, Cello, Double Bass, and various strings. The dynamics range from *ff* to *f*, with specific markings like *poco rubato*, *duo phrase*, *soli (duo)*, *soli (quad)*, and *(quasi-blues)*. Measure 26 starts with a dynamic of *ff*. Measures 27-28 show a transition with *p* and *mp*. Measures 29-30 feature *p*, *mp*, and *p*. Measures 31-32 show *p*, *mp*, and *p*. Measures 33-34 show *p*, *mp*, and *p*. Measures 35 end with *p*.

F ♩ = 60 A rhythmic dance and a promise of hope: Some problems just seem to find a natural solution...

G Subtle change in mood [quasi-blues]...

H The celebration continues: With displaced accents and a relaxed, but fluid pulse...

I A short (and fading) transition...

Fl. *solo molto rubato*

Ob. *soli (duo)* *mp* *mf*

Cl. *mf* *mp*

Bsn. *soli (duo)* *mf* *mp*

Hn. *trio phrase* *poco rubato*

Tbn. *poco rubato* *soli (duo)* *coordinated pulse (duo)* *mf*

Pno. *poco rubato* *(quasi-blues)* *mp* *p* *mf* *f* *mf* *p* *mf* *mp*

8th

H The celebration continues: With displaced accents and a relaxed, but fluid pulse...

I A short (and fading) transition...

Vln.I *soli (duo)*

Vln.II *soli (duo)* *mf* *f*

Vla. *molto rubato pizz.* *mf* *f*

Vc. *molto rubato* *ff* *mf* *ff* *mf* *f* *ff*

soli (duo) *poco rubato* *pizz.* *mf* *f* *mf* *mp* *soli (duo)*

arco *mf* *mp*

soli (duo) *molto rubato* *ff* *coordinated pulse (duo)* *mf* *mp* *vib.* *vib.* *vib.* *mf* *mp*

J A scattering of ideas and a reflection upon recent events...

poco rit.

[♩ = 46]

K ♩ = 60 a tempo

Fl.
Ob.
Cl.
Bsn.
poco rubato
pp
p
soli (quad)
mp
mf
p
p
poco rubato
soli (duo)
p
mf
p
p
solo
2
4
4
pp
p
poco rubato
soli (duo)
p
mp
p
p
poco rubato
solo
p
mp
p
molto rubato
ppp
pp
mp
soli (duo)
mf
p
ppp
pp
p
pp
ppp
8^b

J A scattering of ideas and a reflection upon recent events...

poco rit.

[♩ = 46]

K ♩ = 60 a tempo

Vln.I
poco rubato
p
soli (duo)
mp
mf
soli (quad)
p
mp
poco rubato
poco rubato
soli (quad)
p
mp
poco rubato
p
poco rubato
soli (duo)
p
mp
poco rubato
soli (duo)
p
poco rubato
solo
2
4
4
pp
p
mp
p
pp
pizz.
3
mp
pizz.
3
mp
pizz.
3
mp

[L] A shared reminiscence passes amongst the last of the gathering...

51

4 4

poco rubato

p

soli (duo)

soli (trio)

poco rubato

poco rit.

Fl.

Ob.

Cl.

Bsn.

Hn.

Tbn.

poco rubato

p

pp

p

molto rubato

ppp

p

mp soli (duo)

mf

p

pp

p

pp

Pno.

A shared reminiscence passes amongst the last of the gathering...

4 4

poco rubato

soli (duo)

soli (trio)

poco rubato

poco rit.

Vln.I

Vln.II

Vla.

Vc.

arco

pizz.

arco

soli (duo)

mf

p

pp

arco

mp

mf

p

mp

p

pp

arco

pizz.

arco

poco rubato

mp

mf

p

mp

p

pp

arco

poco rubato

mp

mf

p

mp

p

pp

arco

poco rubato

mp

mf

p

mp

p

pp

A shared reminiscence passes amongst the last of the gathering...

[♩ = 46]

[M] ♩ = 46 With a quiet sense of satisfaction...

poco accel.

♩ = 60 poco rit.

♩ = 40

Fl. solo

Ob. soli (duo)

Cl. soli (duo)

Bsn.

Hn.

Tbn.

Pno.

[♩ = 46]

[M] ♩ = 46 With a quiet sense of satisfaction...

poco accel.

♩ = 60 poco rit.

♩ = 40

Vln.I soli (duo)

Vln.II soli (duo)

Vla. pizz.

Vc. pizz.

Self-Perpetuum
[And other human afflictions]

Score in C

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2014/15

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