

# Reflux — Refract

for flute solo and live-electronics

marko ciciliani 2005



**Reflux — Refract**  
for flute solo and live-electronics

composed by  
**Marko Ciciliani**

for  
**Anne La Berge**  
with a commission by the  
Fonds voor de scheppende Toonkunst

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All electronics in this piece are realized with a specific program written in SuperCollider 3. Various patches have to be loaded by the player while playing the piece. this is realised with a foot pedal. Technical requirements for performing this piece are a Macintosh computer with OSX and a MIDI switch pedal. The program SuperCollider 3 can be downloaded for free at [www.audiosynth.com](http://www.audiosynth.com). The program for this piece is provided by the composer.

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♩ = ±70

## LiveElectronics: PRESET 1

Left Speaker: single delay with a duration of 3x16th notes. Saw-tooth shaped pitch-bending (PB) by a minor third upwards with a duration of 4x1/4note per period.

Right Speaker: single delay with a duration of 5x16th notes. Saw-tooth shaped pitch-bending (PB) by a major second downwards with a duration of 6x1/4note per period.

accents ad lib.  
tongue-rams

Flute *ff*

PB<sup>+3</sup><sub>0</sub>

PROC.1 L-sp.

PB<sup>0</sup><sub>-2</sub>

PROC.2 R-sp.

**A**

9 *mp*

pizz.

**B**

tongue-rams

*ff*

17

Musical score for measures 17-25, section B. The score consists of three staves. The top staff has a treble clef and a key signature of one sharp (F#). The middle and bottom staves have bass clefs. The music is characterized by complex rhythmic patterns, including sixteenth and thirty-second notes, and rests. A dynamic marking of *ff* (fortissimo) is present in the first measure of section B. The section is marked with a box 'B' and the text 'tongue-rams'.

**C**

ord.

*sfz [pp <-> ff]\**

26

Musical score for measures 26-36, section C. The score consists of three staves. The top staff has a treble clef and a key signature of one sharp (F#). The middle and bottom staves have bass clefs. The music features a dynamic range from *sfz* (sforzando) to *ff* (fortissimo), as indicated by the dynamic marking *sfz [pp <-> ff]\**. The section is marked with a box 'C' and the text 'ord.'.

**D**

strong air-component

37

Musical score for measures 37-41, section D. The score consists of three staves. The top staff has a treble clef and a key signature of one sharp (F#). The middle and bottom staves have bass clefs. The music is marked with a dynamic of *f* (forte) and includes a 'strong air-component' as indicated by the text above the section. The section is marked with a box 'D'.

\* dynamics that are indicated within brackets are indicating a dynamic range, in which the player should play the music. It is desired that the entire dynamic range is used and that the changes are performed in an irregular fashion.

42

Musical score for measures 42-45. The score is written for three staves (treble, middle, and bass clefs). Measure 42 features a complex melodic line in the treble clef with a slur over a series of eighth notes. The middle and bass staves provide accompaniment with rhythmic patterns. Measures 43-45 continue the melodic and accompanimental themes, with some rests in the treble clef.

46

Musical score for measures 46-50. Measure 46 has a slur over the treble clef line. Measure 47 continues the melodic line. Measure 48 features a boxed letter 'E' above the treble clef line, indicating a key signature change. Measures 49-50 show the continuation of the melodic and accompanimental parts after the key change.

51

Musical score for measures 51-54. Measure 51 features a slur over the treble clef line. Measures 52-54 continue the melodic and accompanimental parts, showing further development of the musical themes.

**LiveElectronics: PRESET 2**

Left and Right Speaker: like before but without pitchbendings

**F**

56 ord.

**LiveElectronics: PRESET 3**

Left Speaker: time-stretching by 200%. Everything that is played is played back twice as slow. Pitch remains unaltered.  
Right Speaker: time-stretching by 300%. Everything that is played is played back three times as slow. Pitch remains unaltered.  
The preset has to be started sharply with the first note in G.

**G**

67 breathe ad lib. (no circular breathing)

**H**

78

88

I

pp mp [pp <-> f] mp pp

C C CB G# C#

97

J

[pp <-> f] mf > p < mf > p < mf > p < mf > p < sim.

C C C C C C C C C C

104

LiveElectronics: PRESET 4  
 Start to record into a new buffer. From m.153 on this buffer is going to be played back on the Left Speaker with a time-compression of 50%(double tempo). Start sharply on beat 1.

pp p [pp <-> mf] pp

C C C CB C C



114

**K**  
strong air-component  
*accelerando et ritardando ad lib*

ord.

[p <-> f]

*pp*

122

strong air-component  
*accelerando et ritardando ad lib*

ord.

[p <-> f]

*mf*

*mf > p < mf > p < mf > p <*

130

**L**

strong air-component  
*accelerando et ritardando ad lib*

*sim.*

[p <-> f]

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200

137 ord.

*mf* *mp* *mf*

148 breathe ad lib. (no circular breathing)

*mf* *p* *mf* *p* *sim.*

**LiveElectronics: PRESET 5**  
Start to record into a new buffer. From m.194 on this buffer is going to be played back on the Right Speaker with a stretching of 300% (three times as slow). Start sharply on beat 3.

155 **M**

*[pp <-> ff]* *accelerando/ritardando*

163 *strong air-component* *accelerando et ritardando ad lib* N *tongue-rams*

[ *p* <> *f* ]

*ff*

*accelerando/ritardando*

170

ord. CB

[ *pp* <> *f* ]

177 O *strong air-component* *accelerando et ritardando ad lib*

[ *p* <> *f* ]

*accelerando/ritardando*

*tongue-rams*

182

breathe ad lib. (no circular breathing)

[pp] <math>\rightarrow</math> [ff]

accelerando/ritardando

188

tongue-rams

pp

ff

tongue-rams

**LiveElectronics: PRESET 6**  
 Left Speaker: Saw-tooth shaped pitch-bending (PB) by a major-second upwards with a duration of 6x1/4note per period.  
 Right Speaker: slowed down playback of the buffer that was recorded last.

G#

C#

D#

G#

B

194

P

ff

P

**LiveElectronics: PRESET 7**  
Left Speaker: Pitch-bending continues as before with an added octave upwards.  
This signal is delayed by the duration of 1x32nd note.

210

*ff* *f*

Q accents ad lib.

219

[pp<->ff]