

**michal rataj**

**MLUVÍCÍ TICHŮ**

**SILENCE Talking**

**2008**

for flute solo and live electronic

# Notes on performance

## Flute

1. The instrument is equipped with microphone (narrow pick up)
2. Computer CUES can be trigger either with pedal by flute player, or by a computer assistant
3. There are 42 cues marked in the score.

## MAX Msp Patch Set up for performance

1. General Audio-setup is supposed to be done in 4 audio channels.
2. Flute sound goes to the Audio Input of the PATCHER
3. Start up MAX / Msp
4. Be sure to set up proper "File Preferences" directly and ONLY to the patch folder.
5. Open up the path called Silence\_Main\_Patch
6. Follow number **1** through **14** indicated in the main Patch window.
7. run performance.

## There are several independent BLOCKS of the patcher as follows:

### *applied on the flute INPUT*

- pitch tracking (8 partials, 2nd through 9th) connected to 8 oscillators with ENVELOPE Follower powered by audio INPUT
- 4 voice PITCH SHIFTER
- Delay CHAIN - 8 delays connected to 4 outputs, no feedback
- (guitar) DISTORTION

### *independent sound engines*

- 8 oscillators playing particular harmonies and rhythms
- GRANULAR engine (aplicable on the 8 oscillators set)
- Sound BUFFER (for recording microphone input at the beginning of the piece)
- 4 channel sample player (for playbcking 18 pre-recorded samples)

**NOTE:** For up-to-date MAX / Msp Patch contact the composer via [info@michalrataj.com](mailto:info@michalrataj.com)  
The current MAX / Msp Patch is Universal Binary

1.  $\text{♩} = 60$

Flute solo *mf* key clicks *pizz.* *frull.* T. R. *f*

Oscillators

Different Processes *cue 0* init

Fl solo *mf* *poco a poco al niente*

Osc.

Div. *cue 1* *cue 2*

BUFFER Record START STOP

Fl solo *pizz.* *espress.*

Osc.

Div.

$\begin{matrix} 2 \\ 3 \\ 4 \\ \hline 2 \\ 3 \\ 4 \end{matrix}$

$\begin{matrix} B \\ 2 \\ 3 \\ 4 \end{matrix}$

Fl solo

10 *fp* *f* *p* *pizz* *tr* *3*

Osc.

noisy soft granulated chord (e.g. grain 30ms, density 15/s)

cue 3 *p* cue 4

PAF (20) + Granular start

Fl solo

3 4 D# 2 4 D# 15

Osc.

15

Div.

cue 5 DEL event 1

DELAY CHAIN 8 delays: 200-300-400-500-600-700-800-900

*pp* *mf* *pp*

Fl solo

*ppp* *mf* *arp.* *air sound*

Osc.

cue 6

SAMPLE 1 DEL fade out

Div.

*mf*

2. key clicks

Fl solo *mf* *pp* *espress.* *f* *mf* *frull.* *f* T.R.

Osc.

Div.

Rubato

Fl solo *mf* *a tempo* *Rubato* *Rubato*

Osc. *sim.*

Div. cue 7 Synth + Granular Front

PITCH Tracking: 8 oscillators, 2nd through 9th partial, envelope follower

Fl solo *f* *mf* *p* *mf* *mf* T.R. *Rubato* 25

Osc. 25

Div. PITCH Tracking:

Fl solo

Osc.

Div.

PITCH Tracking:

*mf* *f* *mf*

*perc.* *espress.*

B D#

Fl solo

Osc.

Div.

PITCH Tracking:

*a tempo espress.* *f* *pizz* *rit.* *p* *subito p* *sim.*

3 5 30

B

Fl solo

Osc.

Div.

PITCH Tracking:

*mf* *mf* *mf*

C

cue 8 DEL event 2

Pitch tracking STOP

stop

Delay CHAIN, 8 delays, 100m 150, 200, 250, 300, 350, 400, 450 ms

3. *poco a poco vibr.*  $\text{♩} = 110$  *Deep Impact a tempo* 5

Fl solo *p* *f* *sfz*

Osc. *8va*

Div. *DEL fade out Granular Rear* *cue 9* *cue 10* *PAF 21, Granular Fron + Rear*  
*SAMPLE 2* *f* *8 oscillators through granular engine, grains ca 30ms, envelope follower*

Fl solo *cca 12s* *f* 5 6 5 6

Osc.

Div. *cue 11* *cue 12* *cue 13* *cue 14* *PAF 22*  
*sempre oscillator granulation* *SAMPLE 3* *SAMPLE 4* *SAMPLE 5*

Fl solo *frull.* *poco a poco >>>> arp.*  $\text{♩} = 80$  *air sound*  
*cca 14 s* *ff* *mf*

Osc.

Div. *cue 15* *Granular fade out* *cue 16*  $\text{♩} = 80$  *PAF fade out*  
*sempre oscillator granulation* *SAMPLE 6* *SAMPLE 7* *ff*

4.  $\text{♩} = 110$   
Softly

Fl solo

*mf*

*perc. key clicks*

*perc. key clicks*

*espress.*

*mf* 3

Osc.

cue 17 DEL event 3

cue 18

DELAY CHAIN fades in, 100 - 800 ms

Div.

*p*

BUFFER playback START

poco a poco dim. al niente

*p*

45

Fl solo

*perc.*

*mf*

*mf*

*mf*

*p* 3

*pp*

Osc.

45

cue 19 DEL event 4

DELAY CHAIN fade out

DELAY CHAIN fades in

500-1000 ... 4000ms

SAMPLE 8

Div.

Fl solo

*poco a poco frull.*

*fp*

*f*

*ff*

*pp*

*harm. gliss.*

*air sound*

50

3

3

*f*

Osc.

50

Div.

(sample 8)

*mf* DELAY CHAIN



Fl solo

*ff* *f* *harm. gliss.* 55 *air sound*

Osc.

Div. DELAY CHAIN fade out

cue 20

5. (turn the page, start whenever you feel to...)

Fl solo *mf* *key clicks* *pizz* *key clicks* *pizz perc.* 5

Osc.

Div. SAMPLE 9 *pp*

cue 21

6.  $\text{♩} = 110$   
Rush

Fl solo *mf* *molto espress.* *subito mf*

Osc.

Div. (SAMPLE 9) *f* SAMPLE 10

cue 22

*poco a poco tr*

perc.

65

*tr*

*subito*

**f**

Osc.

cue 23 Samples + 8 oscilators

8 oscilators "spiral"

**f**

SAMPLE 11

*tr*

*gliss*

Osc.

cue 24 Samples + 8 oscilators

8 oscilators "spiral"

**f**

SAMPLE 12

*f*

*tr*

*gliss*

Osc.

cue 25

SAMPLE 13

Fl solo

70 *8va* *f* *5* *5* *molto espress.* *espress.* *mf*

Osc.

Div. *cue 26* Samples + DEL event 4 DELAY CHAIN: 600 - 800 - ... 2000 ms

SAMPLE 14

Fl solo

*poco a poco trem.* *frull.* **7.** (turn the page, start whenever you feel to...) *f* *Agressive*

Osc. *f* Oscillators pulsing *sempre*

Div. *cue 27* DEL event 5, PAF 23 DELAY CHAIN 4 delays 250 - 500 - 750 - 1000

SAMPLE 15

*ff*

Fl solo

75 *3*

Osc. Oscillators pulsing

Div.

Fl solo

Osc.

Div.

Delay chain

cue 28 PAF 24

Fl solo

Osc.

Div.

cue 29 8 oscillators

cue 30 8 oscillators, PAF 25

8 oscillators high noise-violin like sound granulated in a random falling down glissando

*f*

Fl solo

Osc.

Div.

(sempre Delay chain)

cue 31 8 oscillators

cue 32 DEL event 6, PAF 26 *mf*

Pitch Shift -12 *mf*

*mf* *ff* *p*

Fl solo

Osc.

Div.

5

*ff*

*gliss.*

6

(sempre)

3

3

Fl solo

Osc.

Div.

9.

*poco a poco trem.*

continuously increasing granulation intensity

polyrhythmic structure ad libitum

cue 33

cue 34

PAF 27, Granular

Delay

Pitch Shift

DISTORTION (hard, rich)

SAMPLE 16

Fl solo

Osc.

Div.

*ff*

3

95

G#

3

3

cue 35

PAF 28

cue 36

PAF 29

Fl solo

Osc.

Div.

(delay)

(distortion)

cue 37

PAF 30

2  
3  
4 G#  
3  
4

8<sup>va</sup>

3

8<sup>va</sup>

Fl solo

Osc.

Div.

100

8<sup>va</sup>

*poco a poco*

*fff*

*ppp*

*ppp*

air sound - up and then resonating at C1

cue 38

PAF 31

delay chain fades out

(distortion)

SAMPLE 17

all off Reverb 5 sec.

cue 39

Fl solo

10.

105

Solitude ♩ = ca 60

*pp*

*mf*

*pp*

*pp*

T. R.

T. R.

Like a folk tune

Fl solo

Fl solo

11. *molto espress.*

Osc.

115

8 oscillators - mild harmony, gliss down

*gliss*

cue 40

SAMPLE 18

*p*

Fl solo

*espress.*

*p*

120

Osc.

120

*poco a poco dim. al niente*

cca 10s

Fl solo

*p*

cue 41

PAF 32, Granular  
noisy soft granulated chord (e.g. grain 30ms, density 15/s)

Osc.

*p*

*poco a poco dim. al niente* - - - - -

Key clicks complementary to the Buffer playback  
tap the corpus of the violin

125

Fl solo

*mf* *p* *mf* *p*

T.R.

Osc.

cue 42

Div.

BUFFER playback

Fl solo

*mf*

Osc.

*poco a poco dim. al niente* - - - - -

Div.

BUFFER