multiMORF II

to Victoria, Thorolf and HC

Knut Vaage

for
electric violin and computer

2008 (version 23de Sept 2008)

made on request from Victoria Johnson
project financed by Norsk Forskningsråd
premiere performance in Oslo Konserthus the 23de of Sept. 2008

the Max/MSP programming is done by Thorolf Thuestad
video by HC Gilje

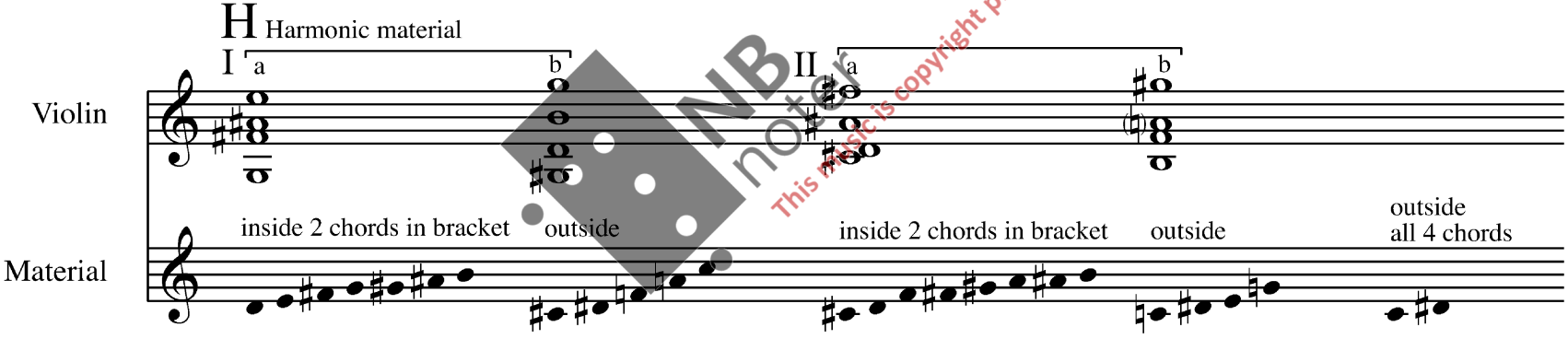
TECHNICAL NEEDS:
full quadraphonic PA with sub
a computer with Max/MSP, and a sound card, midi-controller with 8 sliders and 15 "pots" are required
el. vln. can use MAX/MSP or simular, controlled by a midi controller (pedals or sensor bow)
or "guitar" effects: Volum, Fuzz, Octaver and Digital Delay Pedals
the video part needs a vide screen and a high quality video projector

ABOUT THE NOTATION OF THE SCORE:
Page 1-3 contents material to use and some etudes to get the player to become familiar with this material,
This is examples of what can be done out of the material, but should be performed more freely than written
The etudes is only ment for studying. In perfomances, improvise your own verisions
Notice that the big letters is used later on to indicate the improvised morphings between materials

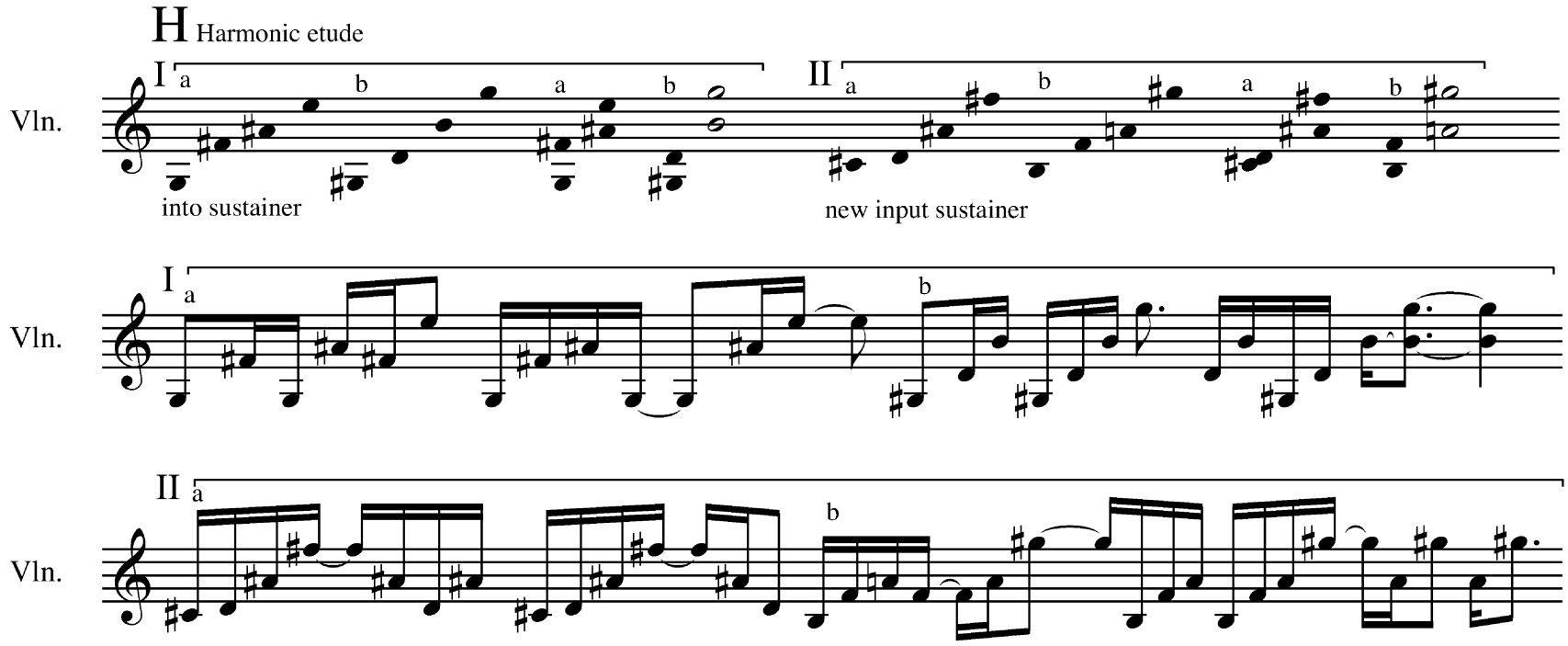
DURATION:
8 – 15 min

material and etudes

Free tempo troughout the piece



The scale material is put here only if the player wants to have some material to improvise on top of



An example of how to treat the harmonic material. Player are absolutely free to change patterns. Only one rule to follow:
The two chords together inside brackets (I a+b and II a+b) fills up each their sustainer buffer on Computer

B Bass material Lowest pitch (or Bowing on Vln body with max gaining)

Vln.

Rule: feed buffer for computer

8va basso (opt. pitched down 2 octaves)

XII 12 tone row material

Vln.

Rule: feed buffer for computer

B --- XII+R Etude: From bass to 12 tone row/rhytmic material

Vln. arco pizz. arco pizz. arco pizz. arco

8va basso (opt. pitched down 2 octaves)

R Rhytmical material

Vln. pizz.

Etude: Sentral tone/row material (expanded from sentral tone) interupted by pauses

arco

Vln.

Vln.

Vln.

XII --- P Etude: From 12 tone row to pause

Vln.

Vln.

P (pause)

Vln.

SN Soft Noise material: Bowings on body, tail piece, neck, bridge
add max gain

Etude: Immitate harmonic etude (page 1) by sorting bowings in relative pitches
(bow body will mace a low sound, bow bridge will make a high sound)

S Space material: pizz behind bridge and neck
add max gain, into sustainer or delay

O Overtone (harmonics) material: Soft playing
add gain, optional into sustainer or delay

N Noise material: Crush tone and other distrotions (bow twist, metal scrapes, wood sounds etc.)
use limiter or compressor

Etude: From continous noise to secco noise staccatto interrupted by gradually longer pauses

TG Trem./trills/gliss material: If you want to use gliss, always add trem.

Etude: Add TG also on SN and O (artificial harmonics) to make sound variation

EFFECTS USED ON VLN (e.g. progr. in MAX/MSP. If no computer, adapt to analog pedals)
sustainer
octaver
delay
gain control
granulation

Lap-top:

the programmer joins the violinist on stage
use a lap-top with MAX/MSP connected to a midi-controller
program MAX/MSP so that the controller appears as a kind of refind mixer
receive a stereo out from the treated violin signal
make samplings and further treatments from this material

program a loop sampler with 8 buffers for each slider
(look at performance pages to get the overwiev of buffers)
the morphings happens by mooving the sliders slowly in crossfades
(option: 2 extra buffers to sample ad lib from the violin output, controlled by "pots")

PROGRAMMED EFFECTS (used like aux):
Spectrum generator (spectrum analyzer to noise resonators)
Pitch shifter (no time correction)
Surround delay
Sustainer
Surround reverb
Granulation
Filter bank (equalizer etc.)
Harmonizer (with and without pitch glide)
Sampler
Morpher (FFT)
Ring modulator
Analog overdrive simulator (vst plug-in)

BUFFERS:

Buffer 1	Harmonic material I	Buffer 2	Harmonic material II
Buffer 3	Bass material	Buffer 4	Rhytmic material
Buffer 5	Overtone material	Buffer 6	Space material
Buffer 7	Tremolo/trill/gliss material	Buffer 8	Soft Noise material

multiMORF II

Introduction fill up buffers

Vln. **H** Harmonic material I (feed lap top buffer 1) — opt. rest c. 5 sec. — **H** Harmonic material II (feed buffer 2) — opt. rest c. 5 sec.
into sustainer

Lap. **Buffer 1** Harmonic material I — **Buffer 2** Harmonic material II
Vln into sustainer — Buffer 1 into surround delay

Vln. **B** Bass material (feed buffer 3) — (B) — *MORPH* — **XII+R**
8va basso
(boost low freq.)
12 tone/rhytmic mat.
(feed buffer 4)

Lap. **Buffer 3** Bass material — (keep for later use) **Buffer 4** Rhytm. mat.
Buffer 1 surround delay — *MORPH* (one or several times) — Buffer 2 surround delay

Vln. **O** Overtones (feed buffer 5) — *MORPH* — **S** Space material
loco, delay, gain up
(feed buffer 6)
max gain, sustainer

Lap. **Buffer 5** Overtone material — Buffer 5 surround delay — **Buffer 6**
Buffer 3 spectrum generator
Space material, sustainer
FADE buffer 1 and 2

Vln. **O** — *MORPH* — **TG** Tremolo/trill/gliss. mat. (feed buffer 7) — *MORPH* — **TG + B**
less gain (still high)
15ma basso

Lap. Buffer 3 and 5 continues — **Buffer 7** (keep for later use)
Buffer 6 into granulated delay — Tremolo/trill/gliss. material

Vln. **SN** Soft Noise material — *MORPH* — **P** Pause
continuous sound — secco (short noise sounds)
(feed buffer 8) granulation

Lap. **Buffer 8** Noise material
Buffer 3 continues
FADE buffer 5 and 6

Morphing section

INCREASING

1

Vln. **P** opt. rest c. 5 sec. — *MORPH* — **SN**
max gain, add granulation ad lib.
ending: ad lib. into sustainer

Lap. **Buffer 1** — *MORPH* — **Buffer 2**
FADE buffer 3 — (one or several times) — FADE in buffer 8
aux treatment ad lib
(option: harmonizer, pitch changed)

Vln.

2

Lap.

S+O+P — *MORPH* — H+SN

"hangovers" ad lib.
high gain

Buffer 8 — *MORPH* — Buffer 7

"hangovers" ad lib.
aux. ad lib.

harmonizer
pitch glides

Vln.

3

Lap.

H — *MORPH* — XII+R

"hangovers" ad lib.
normal gain

Buffer 4 — *MORPH* — Buffer 3 and 8

"hangovers" ad lib.
aux. ad lib.

add noise by using e.g. Ringmod.,
Bit reducer, Overdrive simulator

Vln.

4

Lap.

XII — *MORPH* — R+N

"hangovers" ad lib.
granulation

Buffer 1 and 2 — *MORPH* — P

"hangovers" ad lib.
harmonizer pitched

opt. rest
c. 5 sec.

NO LIMITS

Vln.

5

Lap.

No rules. Free use of all material

adapt effects to the use of material

No rules. Free use of all material

crossfade buffers
adapt aux to the use of buffers

DECREASING

Vln.

6

Lap.

N — *MORPH* — P

granulation

secco (short noise sounds)

Buffer 3 and 4 — *MORPH* — Buffer 5 and 6

FADE "hangover" buffers

sustainer, surround delay

Vln.

7

Lap.

SN+O+TG — *MORPH* — P

high gain

Buffer 3 spectrum generator — *MORPH* — FADE all buffers and aux. P

Buffer 6 and 8

FADE "hangover" buffers

POSTSCRIPT:

The Introduction (at page 4) has to be played in the order it is suggested to fill up buffers
However, the way to play it and the length of each cell can differ a lot.

The Morphing section gives the performers total freedom to make form and choose what to do
Cell 1 - 5 are increasing the density
Cell 7 and 8 are decreasing cells

Follow this structure, or use cell 7 and 8 when feeling the need to calm down

Any cell can be left out, but keep at least 4 of them to insure variation in form

The performers may also alter the order of the cells in use
Continuation is taken care of by using "hangovers"
(let the buffers privious used continue in next cell, or fade gradually