

Study II:

“in grain and shadow”

for 5- or 6-string electric violin and granulizer

Dan Trueman

2000

Technical Notes

Study II is for 5- or 6-string electric violin (a viola low C-string is necessary) and real-time granulizing delay-line. I use the *munger~* (an external that I wrote in C for MAX/MSP, available as part of the PeRColate Toolkit—<http://music.columbia.edu/PeRColate>). The *munger~* takes an incoming audio signal, breaks it up into small grains which are layered, mixed and transposed as requested, creating cloud-like textures of varying densities. *Study II* exploits two primary features of the *munger~*: 1) its ability to “harmonize” the input signal, and 2) its control of delay time and grain size.

After detecting the pitch of the violin signal (using Miller Puckette’s *fiddle~* object), the *munger~* chooses the appropriate pre-composed sonority and randomly transposes each grain of sound to fill out the harmony. The density and tightness with which the grains surround the input signal are controlled by the *munger*’s delay-time: the longer the delay-time, the larger the grains and the more “smudged” the original signal; the shorter the delay-time, the smaller the grains and the tighter they follow the input signal. Control of this parameter is one of the primary expressive elements of *Study II*.

The top system of the score indicates the harmonies generated by the *munger~* given the violin part in the second system (the second system is what the violinist actually plays). The third system represents a set of contours that the performer plays with a foot-pedal, controlling the delay-time; lines near the top of the staff indicate high delay-times (to a maximum of about three seconds, with maximum grain sizes of about one second), while lines near the bottom of the staff indicate low delay-times (of about fifty milliseconds and grain sizes of about twenty milliseconds). These contours are approximate and are suggestions for how the pedal might be played—many other contours are possible and acceptable; indeed, a particular set of contours might represent one interpretation of *Study II*.

—Dan Trueman, 2001

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rubato, unmetered, leave plenty of space

The musical score is organized into three systems, each consisting of three staves. The first system is labeled 'Grains', 'Violin', and 'Pedal'. The second system is labeled 'Grns.', 'Vln.', and 'Pdl.'. The third system is labeled 'Grns.', 'Vln.', and 'Pdl.'. The score includes various musical notations such as notes, rests, and dynamic markings (red wedges).

System 1:

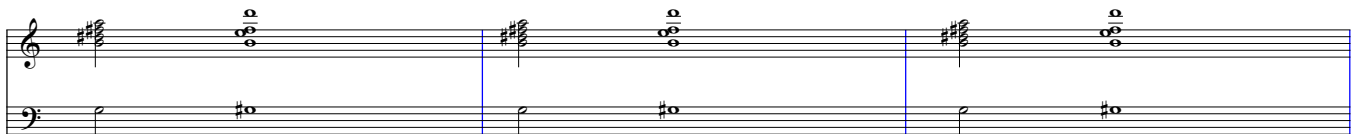
- Grains:** Treble and bass staves with complex rhythmic patterns and accidentals.
- Violin:** Treble staff with notes and slurs, accompanied by red dynamic wedges.
- Pedal:** A single staff with a wavy line representing the pedal effect.

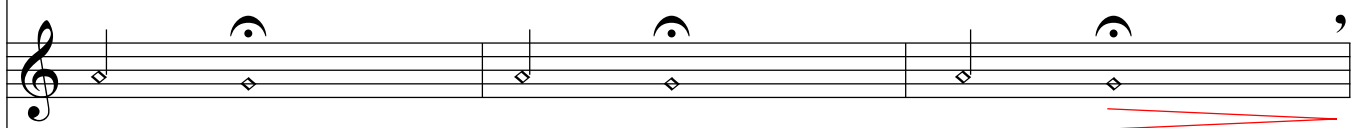
System 2:


- Grns.:** Treble and bass staves with notes and accidentals.
- Vln.:** Treble staff with notes and slurs, accompanied by red dynamic wedges.
- Pdl.:** A single staff with a wavy line representing the pedal effect.

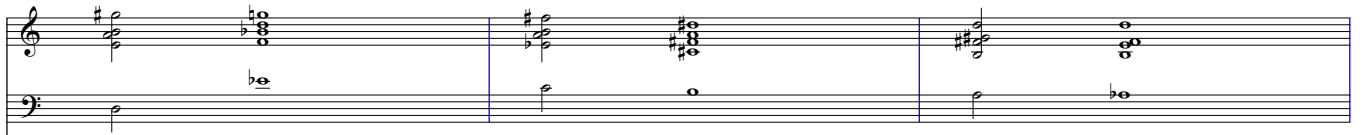
System 3:

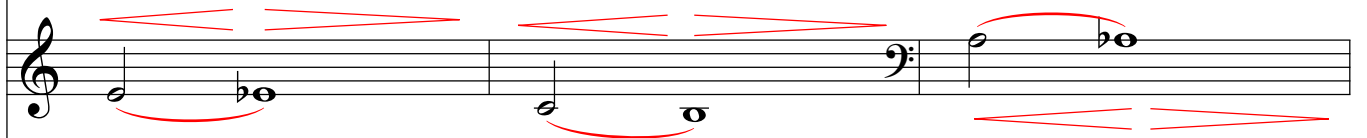
- Grns.:** Treble and bass staves with notes and accidentals.
- Vln.:** Treble staff with notes and slurs, accompanied by red dynamic wedges.
- Pdl.:** A single staff with a wavy line representing the pedal effect.


Grns. 


Vln. 

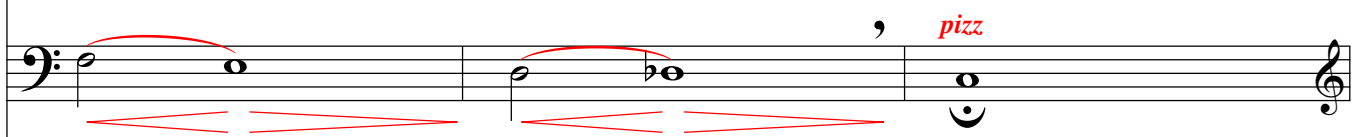
Pdl. 


Grns. 

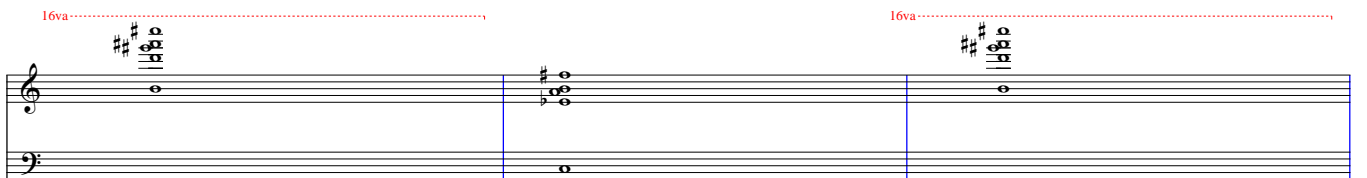
Vln. 

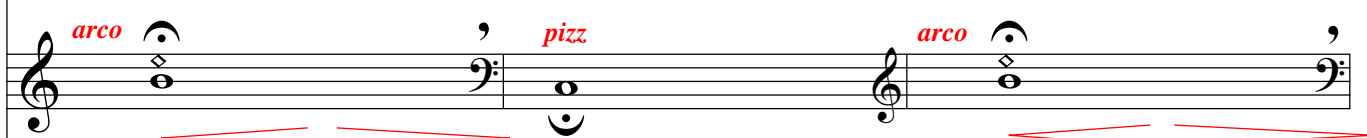
Pdl. 


Grns. 

Vln. 

Pdl. 

Grns. 

Vln. 

Pdl. 

16va.....

Grns.

Vln. *pizz* *arco*

Pdl.

Grns.

Vln.

Pdl.

Grns.

Vln.

Pdl.

Grns.

Vln.

Pdl.

Grns. {

Vln.

PdL.

Grns. {

Vln.

PdL.

Grns. {

Vln.

PdL.

Grns. {

Vln. niente

PdL.