

Waves (No.34)

for amplified piano, sines & live-delay

Peter Adriaansz

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for Sonsoles Alonso

Waves

Performance Notes:

Register & Sounds

The piano part is notated on four staves, based on the framework of a grand piano. The systems are identified according to the positioning of the framework, from low to high: F 4, F 3 & F 2 (exempting the highest octave).

This specific core departs from frame divisions between B_b and B_b and between f_# and g_#, according to the composers' own piano. Since the frameworks of most grand pianos are not standardised however, different transpositions of these pieces are available for different grand pianos.

The four piano systems are subdivided into two systems for sustained E-Bow pitches (middle frames, F 2 & F 3, three E-Bows in total) and two systems for struck, plucked or muted keyboard pitches (outer two frames, high position: F 2, 3 and low position: F 3, 4 - both overlapping between frames).

An extra system named 'Pitches', gives the approximate results of the E-Bow lines. This line is not to be played, but should be consulted in order to obtain the desired result.

E-Bows + Preparation

The pieces use a minimum of three (guitar) E-Bows. For a maximum result on the piano, the E-Bows will need to be prepared to fit the (wider) strings of the piano. To do this, the guitar-string crevaces will need to be filed away (creating a flat surface - a pair of sharp scissors are a good tool with which to scrape away the plastic), while also broadening the resonance gap between the bridges to fit the three strings of the piano. After doing this, the surfaces of the filed down bridges should be covered with a single strip of textile tape or bandaid so that the contact with the strings is inaudible. In principle the prepared E-Bows should be able to play all of the 3-choired strings.

Timing

The pieces are all based on a form of *relative timing*, meaning that the progressions from pitch to pitch are dependant on the accomplished sounds. Generally, the duration of each separate Time Unit (consisting of three to four Units per 'bar' - indicated by a divided barline) can last anywhere between 20 to 60 seconds. Give or take 1 or 2 minutes on either side, the overall duration for each piece should lie around 10 minutes.

Performance

The pieces should be performed as a simultaneous interaction between the E-Bows and the other pitches. To this purpose, one of the hands should be controlling the E-Bows, while another concentrates on the pitches. Due to the complexity of the various interactions, the strings should probably be labeled with their pitch names. Each piece separately indicates positioning and use of the E-Bows (see explanation of symbols on the next page). E-Bow harmonics are always played *behind* the dampers; straight tones always *in front*.

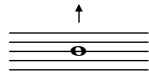
Electronics

The piano should be amplified and run through a delay patch, chopping off the piano attacks, picking up sounds after ca 5" and then running for a total of app. 20" delay time. Additionally, there is a part for sine-tones - both fixed as well as improvised. The delay patch can be obtained from the composer.

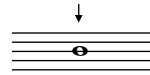
Explanation of the symbols

A Sustained sounds:

E-Bow:



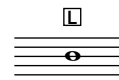
Place E-Bow *in front* of piano dampers



Place E-Bow *behind* piano dampers



Use *harmonic mode* (right switch)



Use *regular mode* (left switch)



Create *fuzz tones* by tilting the E-Bow forwards and back while exerting differing degrees of pressure on the string. Constant fuzz tones can also be created by placing the E-Bow more-or-less Unacorda (unreliable however)



Exert pressure on the E-Bow: hold bow with right hand while pressing down on the string

B Single sounds:

Keyboard



Ordinary, struck tone



Plucked tone (pizz)
Use flesh or fingernail



Muted tone:
Press string *behind* damper while striking key. Leave finger on string. In lowest frame (Frame 4), press string where coiling starts; in Frame 3, press as close to the tuning pegs as possible



E-Bow positioning:
the dotted line symbolizes the dampers, one E-Bow in front, two behind.

Harmonics

simultaneous attacks:



Depress harmonic simultaneously with the fundamental. Leave finger on string. Play with either flesh or fingernail (for metallic sound)



Laissez vibrer:
Depress harmonic simultaneously with the fundamental. Release finger immediately. Play with either flesh or fingernail

non-simultaneous attacks:



Depress harmonic *after* striking fundamental. Keep finger on string. Press lightly for single harmonic or exert pressure on the string for multiple harmonics.

Waves 1-4

Waves

Peter Adriaansz

The score consists of seven staves. The top three staves, labeled 'Sines', show a gradual decay from *pp* to *pp* over the course of the piece. The 'Pitches' staff features a melodic line starting *f* and ending *pp*. The 'F 2/3' staff includes a 'RRR' marking and a note that 'Outer Voices are Available pitches: choose pitches in any order. With the exception of new pitches, any or all of the available pitches may be played, repeated etc. Use all techniques.' The 'E-Bows' section includes a 'prepare' box and various bowing directions (L, R) indicated by arrows. The 'F 3' staff has a 'ped.' marking with a dashed line. The 'F 3/4' staff shows a bass line with various chordal textures. A large 'SAMPLE' watermark is overlaid on the Pitches staff.



523.25 Hz 494.43 Hz 466.68 Hz 523.25 Hz 493.88 Hz 466.16 Hz 523.25 Hz 493.88 Hz 462.495 Hz

pp

494.43 Hz 466.16 Hz 523.25 Hz 493.88 Hz 466.68 Hz 523.25 Hz 493.88 Hz 466.68 Hz

pp

466.16 Hz 523.26 Hz 466.68 Hz 523.24 Hz 466.16 Hz 523.25 Hz 493.88 Hz 466.16 Hz

pp

Pitches

p 3 X p/ 2 TU 2 X p/ 2 TU 3 X p/ 2 TU

ca. 4" - 6" *gradually pull to end*

SAMPLE

Outer Voices: play in fixed, written order, while observing a regular distance between the successive pitches.

F 2/3

F 2

E-Bows

F 3

etc. (always control the harmonics)

F 3/4

3 X p/ 2 TU

ped. ----->



ascending spectrum

Record low D₂ and transpose accordingly 69.269 Hz

Prepare 138.59 Hz

Sines (harmonics 8 to 16)

pre-recorded piano (E-Bow sound)

277.1842 Hz

311.832 Hz

346.48 Hz

381.128 Hz

415.776 Hz

450.424 Hz

485.072 Hz

519.72 Hz

544.368 Hz

277.18 Hz

349.23 Hz

415.30 Hz

493.88 Hz

554.37 Hz

207.65 Hz

fade out quickly upon disappearance of E-Bows

Pitches

SAMPLE

replace top notes with muted notes (alternate in any order)

replace muted notes with Major 3rd harmonics (alternate in any order, gradually add upper harmonics, then delete again, expanding downwards)

F 2/3

free timing

F 2

E-Bows

F 3

remove simultaneously

gradually slow down + decresc. - end with harmonics only

F 3/4

gradually build up fundamentals; alternate cells (indicated by brackets) in any given order, reading backwards and forwards

ped. ----->

IV

Available pitches: choose one pitch at a time, separated by silence
Maximum of two pitches allowed at any time.

The musical score is divided into several staves:

- Sines:** Three staves (Treble, Alto, Bass clefs) showing melodic lines with various notes and rests.
- Pitches:** A single staff showing a sequence of notes.
- F 2/3:** A staff with notes and a series of phi symbols (φ) at the end.
- F 2:** A staff with notes, rests, and labels EB 1, EB 2, EB 3, L/R, and L.
- E-Bows:** A section with three staves (F 2, F 3, F 3/4) and various annotations including EB 1, EB 2, EB 3, L/R, L, and a 'ped.' marking.
- F 3:** A staff with notes and rests.
- F 3/4:** A staff with notes and a series of phi symbols (φ) at the end.

SAMPLE

Outer voices are *Available Pitches*; choose pitches in any order. With the exception of new pitches, any or all of the available pitches may be played. Combine struck, pizz and muted attacks. Where muted notes are specifically notated, they overlap with sustained E-Bow pitches.