

Praescio VII (piano... and then some)

Piano &
Interactive System

Bruce Pennycook

Commissioned by ACREQ with the assistance of the Canada Council for the Arts

For alcides lanza

Duration: ca. 15 minutes

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Program Notes

This work continues my interest in virtuoso solo pieces combined with computer-controlled electroacoustic forces. Previous works in the PRAESCIo series such as PRAESCIo-III: *the desert speaks* (MIDI harpsichord), PRAESCIo-IV (extended clarinet), and PRAESCIo-VI (flute) have exhibited a growing understanding by the composer of the compositional and technical demands imposed by the marriage of the virtuoso soloist and interactive systems.

In this work, I have attempted to weave computer generated musical materials and audio signals deeply into the design, construction and realization of all compositional aspects. Some of the underlying structures and certain passages for the piano soloist have been derived from algorithmic treatments using software developed in H. Taube's *Common Music* package for Macintosh Common Lisp. All of the audio materials (CD's) have been generated using software developed in the NeXT version of P. Lansky's *cmix*, a collection of programmable audio signal processing and manipulation routines. The result is a mixture of solo performer, performer-controlled interaction, MIDI controlled sample playback, plus multi-channel audio signals delivered under software control during the performance. It has been my intention that these many forces -- from algorithmically generated structures to real-time execution -- be seamlessly integrated into an expressive, dynamic vehicle for the soloist and that the piano and accompanying electroacoustic materials form a unified though greatly extended sonic resource.

Acknowledgments

This work was commissioned by ACREQ with the assistance of the Canada Council for the Arts. Technical assistance has been provided by Jason Vantomme (LISP resources) and Debbie Reynolds (piano recordings). Final piano score edited by alicides lanza. Notation by Dave Nichol and Bruce Pennycook.

It is dedicated to my friend -- composer/pianist, alicides lanza.

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Technical Requirements (original version)

piano, 2 microphones
Macintosh computer (68040 or faster, 8 Mbytes
RAM)
2 Opcode MIDI Translators (or an equivalent
dual port interface)
MIDI Time Clip¹
1 MIDI Foot Switch
2 Apple CD-ROM drives
E-mu Systems Proformance
E-mu Systems Morpheus

E-mu Systems Proteus-II
Niche ACM 8X8 MIDI-controlled mixer
Lexicon LXP-15 signal processor
digital reverberator
8 loudspeakers on stands
4 stereo amplifiers

¹ MIDI Time Clip

The *MIDI Time Clip* is a MIDI controlled device developed by B. Pennycook and Eric Johnstone which provides bi-directional communication between the computer system and the performer. A six-character display presents cues or other alphanumeric information, several colored LED's provide tempo or pulse cues. Two Foot Switches and one Continuous Controller may be connected to the device for triggers and control from the performer to the system.

Materials

Piano Part
software, data sets, setup information
2 Compact Disks (audio signals)

PRAESCIO-VII (piano ... and then some)

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Artistic Concept

This work originated from a commission by pianist and composer, alcides lanza. My intention was to extend the piano sonically and spatially using a variety of electroacoustic resources but retain the acoustic piano and the performer as the central element.

The soloist dominates the work in several ways. First, the solo part is intentionally virtuosic and “showy” providing a strongly pianistic vehicle for the soloist to demonstrate his artistry as a pianist. Second, the piano remains an acoustic instrument. Though amplified, it is not treated in any special way nor would a “midi controller-piano samples” instrument be a suitable alternative to a large, sonorous concert grand especially given the interior sounds sections of the work. Third, the pianist controls the flow and pace of the work by triggering events. In some cases an event is many measures (such as the opening), in others it may be single note or cd audio track.

The piece is essentially a double rondo. The two main elements: repeated notes (as heard in the opening) and descending chromatic chords (as heard in the section after the opening) form the basis for a series of episodes. Each episode presents another “view” of the material through development/variation techniques and through different contributions from the electroacoustic materials. As the episodes evolve, different electroacoustic materials are engaged.

Another aspect of the work is the sonic presentation. On stage, I have arranged eight loudspeakers (in four stereo pairs) in an array clustered around the piano. The intention is to provide a larger radiating source than two speakers. As shown in the setup page in the piano part (submitted), the speakers are all near the piano, rather than many meters away in the stage corners as usual. The piano, which itself is a very large sound radiator, is amplified only enough to enlarge the region of radiation and to provide a general balance with the electroacoustics.

The work is interactive from the viewpoint of control and flow of the materials. This is controlled by a footswitch (trigger data to computer) and the MIDI Time Clip interface which provides visual information and cues to the player in several formats: event number, tempo count-in, current measure count (where applicable), elapsed time in seconds (for passages with digital audio).

Technologies

The work was developed on Macintosh computers using: Common Lisp, MAX, Performer, and C (to make custom MAX objects) and on NeXT Computers: digital audio processing and mixing. CD-ROM's were recorded to store all digital audio passages (Pinnacle 2000 CD-R unit.)

Composition Software

Common Music - algorithmic passages for the MIDI system and for the piano

MAX - procedural generation of passages for MIDI system, post-processing
of Standard MIDI Files (generated in Common Music).

Digital Audio Processing

Digital recording and editing of piano fragments

Csound processing of piano fragments

CMIX processing of piano fragments

RT - processing and mixing of audio fragments

Performance Control

MAX software to control MIDI Time Clip input and output

MAX software to manage timing data from 2 CD-ROM's

MAX software to control NICHE Audio Control Unit (automatic
audio levels, 8 in --> 8 out)

MAX software to manage, play and post-process Standard MIDI Files

Bruce Pennycook

Montreal, 1994

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Technical Requirements (Version 2)

A second version of Praescio VII was prepared for touring. It requires only a CD player and the Praescio VII Version 2 Compact Disk.

The CD is available from the composer.

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The musical score consists of four staves:

- Piano Staff:** Starts at $\text{J} = 100$. Includes dynamics *ff*, *mp*, *8va sempre*, *accel.*, *poco a poco*, *sim.*, and *riten.*.
- Midi Staff:** Starts at $\text{J} = 100$, marked *e.1*. Includes *18X* and *accel.*
- Pno Staff:** Starts at $\text{J} = 100$, marked *(8va)*. Includes *ff*, *dim.*, and *pff*.
- Midi Staff (Bottom):** Shows a sustained note followed by a long horizontal bar with an arrow pointing right.

Praescio VII

- * 1. Only chords marked Λ should be accented. All others as evenly as possible.
- 2. Only chords that have changed are notated; otherwise—repeat.

2

Pno

Midi

10 (8va)

fp cresc. - - - *fp* (non cresc.) *fp* *fp* cresc. - - -

15 (8va)

ff *ff* *fff* *mp* *f* *ff* *p*

rit. poco a poco

Pno

Midi

20 (8va)

(*p*) cresc. - - - *mf* dim. - - - *p* *f* dim. - - - *pp* *f*

Praescio VII

3

(8va) 

Pno

25  loco 
ff  *mp* 
mp   *ff*  *8vb* 
 hold to total decay 
 N 
e.2 

Midi

 *ff* 

 = 60 (8va) 

Pno

28  loco 
 FS   *ff*               
 *dim. poco a poco* - - -
   

Midi

 = 60

4

31

Pno

Midi

34

Pno

Midi

37

Pno

Midi

Praescio VII

This image shows three staves of musical notation. The top staff is for 'Pno' (piano) in treble clef, the middle staff is for 'Midi' (MIDI), and the bottom staff is for 'Pno' (piano) in bass clef. Measure 31 starts with a treble clef, followed by a bass clef. Measure 34 starts with a bass clef. Measure 37 starts with a bass clef. Measure 31 has a dynamic of 3 above the staff. Measure 34 has a dynamic of 5 above the staff. Measure 37 has dynamics of dim. , p , and mf . Measure 37 ends with a treble clef. Measure 37 also includes the text *Praescio VII*.

40

Pno

dim.

pp

Midi

44

Pno

f

Midi

Praescio VII

6

49

Pno

dim. molto

8vb

Midi

54

Pno

riten.

8va

ff

8vb

loco

l.v.

ff

e.5

e.6

N

Midi

8vb

l.v.

N

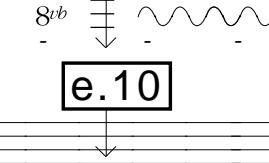
mp

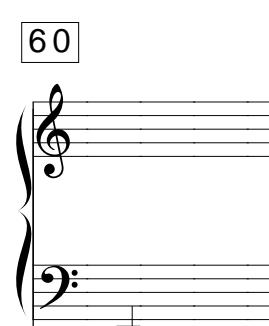
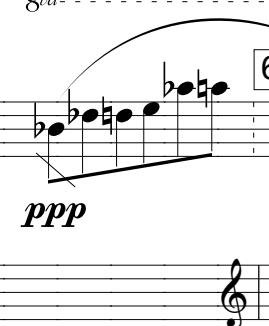
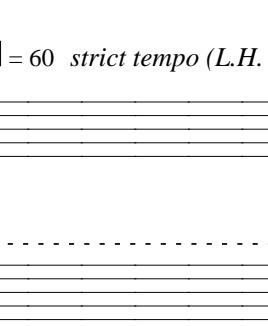
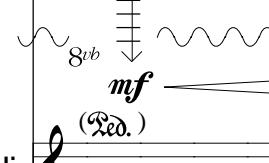
N

Praescio VII

Pno *8va*
54 $\flat\text{A}$ $\sharp\text{A}$ loco $\flat\text{A}$ $\sharp\text{A}$
p <> <>
8vb
fff
e.7
 Midi
8va
57 $\sharp\text{E}$ $\sharp\text{G}$ $\sharp\text{B}$
loco
pp $\flat\text{D}$ $\flat\text{F}$ $\flat\text{A}$ $\flat\text{C}$
ff
8vb
8va
f > >
pp $\flat\text{D}$ $\flat\text{F}$ $\flat\text{A}$ $\flat\text{C}$
5
8va
ff $\sharp\text{D}$ $\sharp\text{F}$ $\sharp\text{A}$ $\sharp\text{C}$
loco
5
dim.
e.8
N *cresc. poco a poco*
e.9
8vb
7

Praescio VII

8
 58 
 Pno *poco dim.*
p
 15ma 
 59 [take SuperBall mallet]
 SUPERBALL
 N *pp*
 sub. *ffff*
ped.
 8vb 
 e.10

60 
 Pno *ppp*
 61 
 62 
 8vb 
mf *pp* e.11
 (ped.)
 e.12

Praescio VII

very lightly, rapidly

Pno

Midi

63

loco

8va-----

65

loco

8va-----

e.13

9

(*R&d. semper*)

8va-----

Pno

Midi

67

pp semper

(*R&d.*)

70

loco riten.

8va-----

Praescio VII

Pno

10 8va- - - , loco

71,

riten.

Midi

ppp
(*R&d.*)

Pno

74 accel. - - - riten.

8va-

loco

Midi

pp

(*R&d.*)

Praescio VII

Pno

Midi

77 *Slowly*

78

8va-
a tempo
pp

11

Pno

Midi

81 *accel.*
8va-
pp
e. 14

8vb-
cresc. poco a poco
e. 15 *mp*

8vb-
loco
8vb-
loco
f

accel.
f

pp

Praescio VII

12

Pno

85 $\text{♩} = 100$
3
pp

86-89 *pp dim. a niente*

4X $\text{♩} = 100$
ff sub
N $\text{♩} = 100$ *accel.* - - -
ff
(Bassoon) \circ
ff 8 ν \sharp E

Midi

4X *ff* N e.16 e.17
e.18 e.19

Pno

91 *ff* (sim.) p *long* - *rit.* - -
p (sim.) *mp* $\text{p} \text{p}$ *accel.* - - -
p f *stacc.* - - *long*
ff

Midi

e.20 e.21 e.22 e.23 e.24 e.25 e.26 e.27 e.28 *pp* e.29

Praescio VII

Pno (non accel./riten.)
 4 8 11
 92

13
 93

Midi e.30 ff e.31 ff e.32 ff e.33 ff e.34 ff

Pno ff ff

acc. -

80 100

accel.
 3
 3

e.35 p e.36 ff e.37 ff e.38 ff e.39 ff

Praescio VII

Pno

14

(non accel./riten.)

94 8 4 8 12 95 96 (accent only as marked)

pp

(Rwd.)

Midi e.40

Pno

97 100 102 14"

mf cresc.

fff

[take small mallet]

Midi e.43

Praescio VII

Pno Inside: high sweeps, soft fingers 104

103 8va-
erratic, spaces ***pp*** ***mf*** ***p*** ***mp*** ***pp*** ***pp*** ***mf*** ***pp*** ***mp*** ***mf***
Inside: high plucks (sparse) * x * x * x * simile
pp sempre, no accents

Midi e.44 e.45 e.46

Pno 105 Plucks, sparse
(sim.) N 8va-
gradually increase activity 10" ***pp*** ***pp*** ***pp*** ***pp*** ***f*** ***p*** ***p*** ***p***
cresc. poco a poco loco loco

Midi e.47 e.48

16

Pno

(end plucks) 107 *lv*

[leave mallet]

Inside: sweep rapid

108 *rapid*

109 *slower*

e.49

Pno

Midi

♩ = 60

10"

10"-12"

f

mp

108

109

e.50

e.51

Pno

Midi

p *8vb* *ped.*

f *ped.*

Praescio VII

Pno

113 cont.

mf

Rit.

Rit.

Midi

This block contains the musical score for the piano and MIDI at measure 113 continuing. The piano part consists of two staves: treble and bass. The treble staff has a melodic line with grace notes and dynamic markings like *mf* and *Rit.*. The bass staff has sustained notes. Below the piano score is a blank set of five-line staff lines labeled "MIDI".

Pno

118

mf

f

f

f

loco

mf

p

mf

Rit.

Rit.

Midi

This block contains the musical score for the piano and MIDI at measure 118. The piano part consists of two staves: treble and bass. It features dynamic changes from *mf* to *f*, then *loco* (change of place) to *mf* and *p* (piano). The bass staff has sustained notes. Below the piano score is a blank set of five-line staff lines labeled "MIDI".

Pno

18 *slowly, accel.* rapidly

pp f

123 *f*

124 *pp*

125 $\text{j} = 60$

Midi

Pno

126 *ff*

ff

ff

ff

ff

ff

ff

fff

Midi

e.52

Praescio VII

19

Pno

...129

130

8va--

mf cresc. *sub. p*

cresc.

fff

8vb. *20.*

e.53

Midi

This musical score page shows two staves. The top staff is for the piano (Pno) and the bottom staff is for MIDI. Measure 129 starts with a dynamic of *fff*. Measure 130 begins with a dynamic of *mf*, followed by *cresc.* and *sub. p*. The piano part features eighth-note patterns and grace notes. The MIDI part consists of a single note sustained across the measures. Measure 130 ends with *cresc.*, *ff p*, and *cresc.*. Measure numbers 129 and 130 are in boxes, and measure 130 includes dynamics *8va--*, *8vb.*, and *20.*. A rehearsal mark e.53 is placed under the piano staff.

134

cresc.

f ff

dim.

simile

N

e.54

Pno

Midi

This musical score page shows two staves. The top staff is for the piano (Pno) and the bottom staff is for MIDI. Measure 134 starts with *cresc.*, followed by *f ff* and *dim.*. The piano part then continues with eighth-note patterns. Measure 134 ends with *simile* and a dynamic marking *N*. Measure number 134 is in a box. A rehearsal mark e.54 is placed under the piano staff.

Praescio VII

20

140

Pno

p cresc. sim.

p 2 sim.

mf dim.

ppp

ff 8va loco *f*

e.55

Midi

(e.56)

This musical score page shows two staves. The top staff is for the piano (Pno) and the bottom staff is for MIDI. The piano staff has two systems of music. The first system starts with dynamics *p* and *cresc.*, followed by *sim.* (simile). The second system starts with *mf* and *dim.* (diminuendo). The piano part ends with *ppp*. The MIDI staff below it ends with *ff* and 8va (octave up), followed by a tempo change to *f*. Measure numbers e.55 and e.56 are indicated with arrows pointing to the piano staff.

...146 (8va)

ff

dim.

p

N

mf

dim.

8vb

e.57

Midi

This musical score page shows two staves. The top staff is for the piano (Pno) and the bottom staff is for MIDI. The piano staff has two systems of music. The first system starts with *ff* and *dim.* (diminuendo). The second system starts with *mf* and *dim.* (diminuendo). The piano part ends with *p* and *N*. The MIDI staff below it ends with *8vb* (octave down). Measure number e.57 is indicated with an arrow pointing to the piano staff.

Praescio VII

Pno

154

mf

f

f

ffff

ffff

(off with system)

mp

e.58

e.59

e.60

e.61

e.62

Midi

This musical score page for piano (Pno) and MIDI system shows a dynamic range from *mp* to *ffff*. The piano part features various dynamics, including *mf*, *f*, and *ffff*, with performance techniques like wavy lines and slurs. The MIDI part consists of two staves of five-line notation, with measure numbers e.58 through e.62 indicated below them. A bracket labeled "MIDI" spans both staves. Measure e.58 starts with a single note, followed by a rest. Measures e.59 and e.60 show a more active pattern of notes. Measures e.61 and e.62 end the section. The score concludes with the instruction "(off with system)".

21