

# *Traces*

*for*

*Bb Clarinet and Interactive Electronics*

*by*

*Keith A. Hamel*

*Duration: Approx. 8' 30"*  
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*Commissioned by Jean-Guy Boisvert*

*with the financial assistance of the Music Section of the Canada Council*

*Premiere performance at Place des Arts, Montreal on September 21, 1995  
by Jean-Guy Boisvert*

*Dedicated to Luc David Hamel*

# Technical Requirements

## Hardware:

- 1 Macintosh computer with MIDI Interface
- 1 IVL Pitchrider (or comparable device)
- 1 Proteus-1 synthesizer
- 2 MIDI cables
- 1 amplification system - mixer, amp, speakers

A disk with all the necessary Max files is available from the composer.

## Software:

Max Patcher Version 2.1 or higher

## Performance Setup:

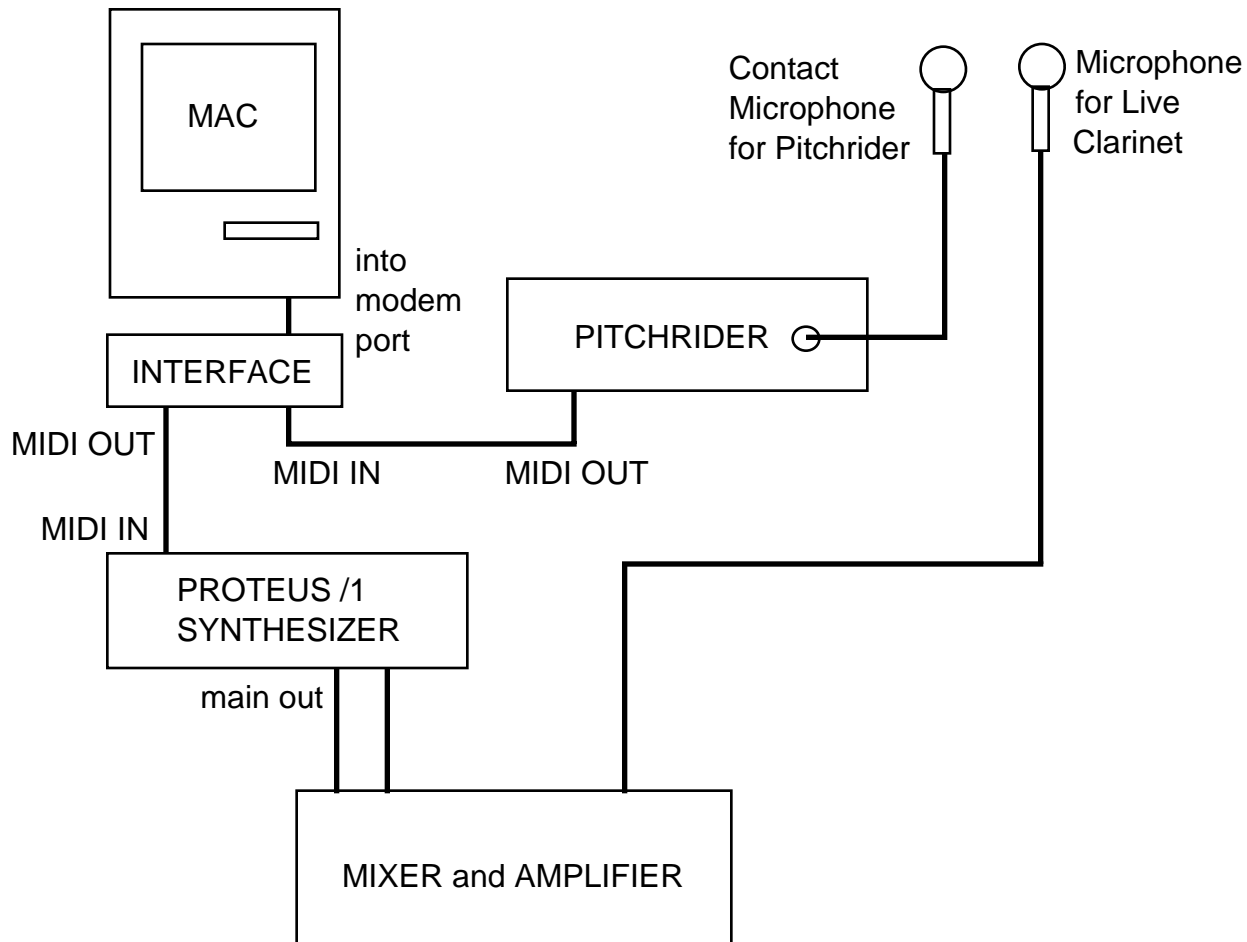
A reed microphone, contact microphone or lapel microphone (in the bell) can be used as a pickup on the clarinet. The microphone is plugged into the pitch-to-Midi converter (eg. IVL Pitchrider) and the input levels adjusted. The MIDI OUT of the Pitchrider is connected to the MIDI IN of the Macintosh MIDI interface. The MIDI OUT of the Macintosh MIDI interface is connected to the MIDI IN of the Proteus. The Macintosh MIDI interface should be connected to the Modem port of the Macintosh computer. Audio lines connect the Main stereo outputs of the Proteus synthesizer with the Amplification System. A second microphone can be used to pick up the clarinet performance so that it can be mixed with the sounds from the synthesizer.

## Software Setup:

Once the equipment has been set up, the "TRACES-MAIN" file on the Macintosh disk should be launched. A panel appears on the Macintosh screen - this is the main panel of the Max Patcher program that controls the electroacoustic sounds. The large START button at the left side of the window starts the program running at the beginning of Section 1. The numbers in boxes along the top are for rehearsal; these boxes can be clicked to start the program at that Section of the piece. The Trigger button flashes whenever a new section is started and the section number is displayed. When Cues within a Section are detected, the Cue button flashes and the Cue number is displayed. As well, the received pitch and velocity are displayed during performance. The Reset button sets the section number to 0 (stopping the current section), but still allows the incoming pitch and velocity information to be displayed. The Thru button sends the incoming pitches and velocities directly to the synthesizer.

To download the voices to the Proteus-1 synthesizer, double-click on the "downLoadVoices" box, and click the large button in the downLoadVoices window. The downloading light will be highlighted while the voices are being downloaded (about 1 minute). Once downloading

is completed, click on the goaway box to hide the download window. All voices used in the piece are located in preset locations 64 - 120. You should also ensure that the Master settings on the Proteus-1 are correct: all channels should have Mix Output set to Main, the Midi Mode should be Multi 00, Midi Overflow should be Off, Midi Enable should be On on all channels, Preset Change should be On on all Channels, and Midi Prog-Preset should not remap any program numbers between 64 and 120.



*Performing the Piece:*

*The performer should tune to the Pitchrider, and check that the correct pitches are being received by the program. Written middle C - sounding Bb is pitch number 58. Also, the performer should ensure that the range of velocities (i.e. volume) received from the Pitchrider is sufficiently wide - soft notes should be under 30, loud ones over 100. If not, the dynamic scaling on the Pitchrider can be adjusted.*

*To begin the piece, the performer needs only to click on the START button and begin playing the score. She/he should check the computer screen to see that Cues within sections and triggers to move to the next section have been "caught". If not, the transition pitch or pitches should be re-articulated. The performer should not need to touch the computer while the piece is performed. All level controls and voices are automatically controlled by the program.*

*For more information or clarification, the composer can be contacted at:*

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Clar. **1** ♩ = 104

gradually less pitch, more breath

7"

ppp cresc... mp p ppp

Elec. **1** 0 gradually fade in electronics . . .

Clar. p mp p ppp

5"

Elec. p **1**

Clar. mp (flutter) mf p fp

Elec.

Clar. random order 3" fp fp random order 4" fp random order 6" ppp

pp pp mf fp ppp

Elec. **2**

Clar. *poco a poco rit. ...* *molto accel. ...* *random order* 7"

Elec. *mp* *f* *p* *ppp*

3

Clar. *sfz* *ppp* *sfz* *pp* *sfz* *p* *sfz* *mp* *sfz* *mf* 9"

Elec. *ppp*

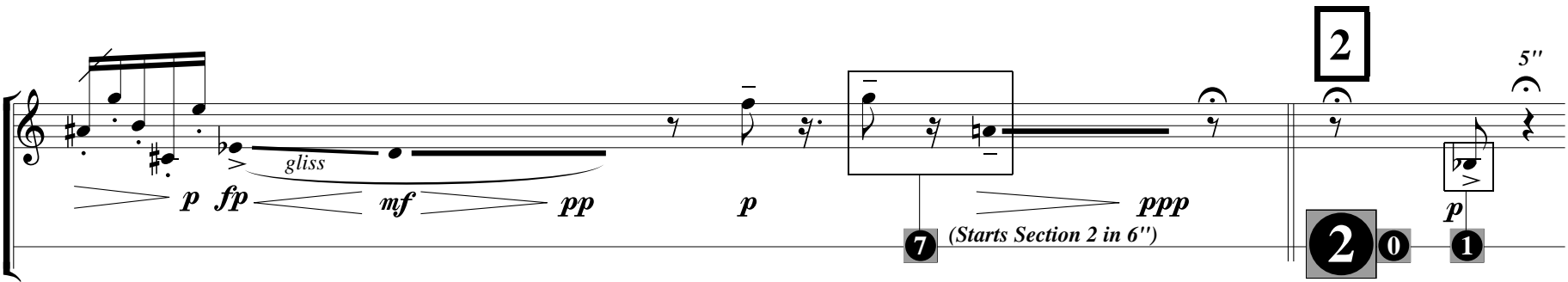
Clar. *a tempo* *gliss.* *gliss.* *mp* *f* *p* *pp* *p*

Elec. 4 5

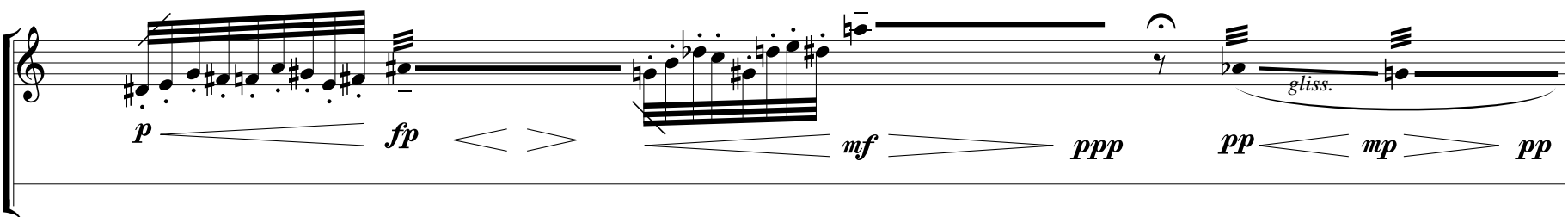
Clar. *gliss.* *gliss.* (flutter) *f* *p* *mf* *pp* *p* *f*

Elec. 6

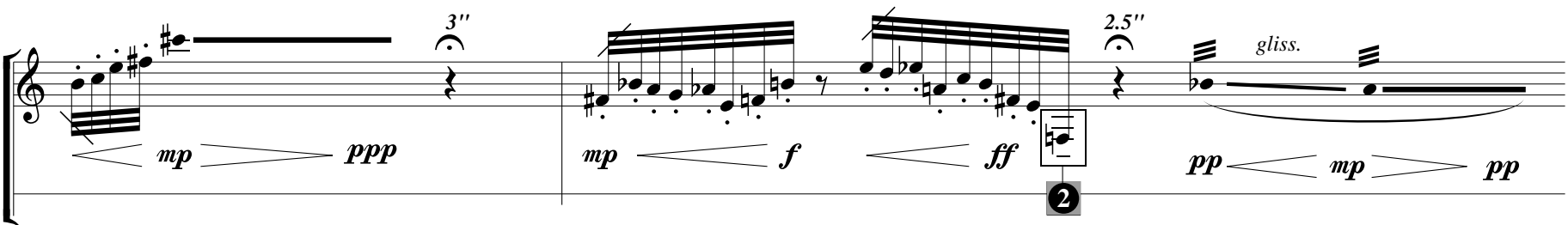


Clar.  *gliss* *p* *fp* *mf* *pp* *p* *ppp* **2** *p* 5"

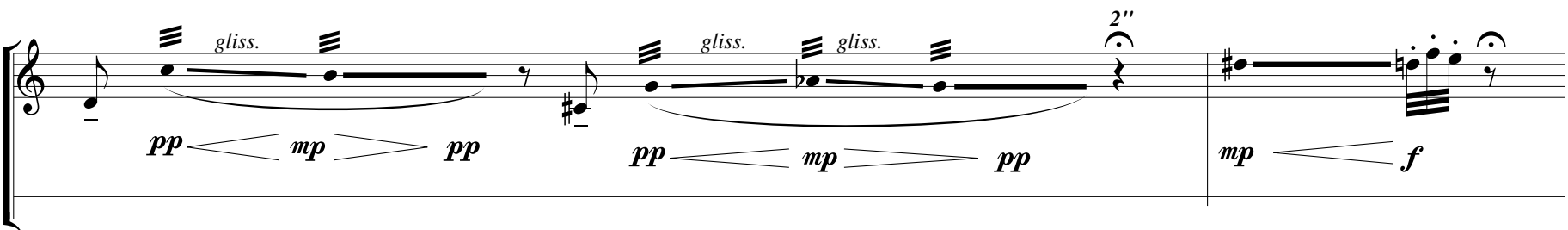
Elec. **7** (Starts Section 2 in 6") **2** **0** **1**

Clar.  *p* *fp* *mf* *ppp* *pp* *mp* *pp*

Elec.

Clar.  *mp* *ppp* *mp* *f* *ff* *pp* *mp* *pp* 3" 2.5"

Elec. **2**

Clar.  *gliss.* *pp* *mp* *pp* *gliss.* *gliss.* *pp* *mp* *pp* *mp* *f* 2"

Elec.

Clar. *ff* *f* *mf* *p* *mp* *pp* *p* *pp* *p* *pp*

Elec. **3**

*gliss.*

Clar. *mp* *pp* *p* *fp* *sfz* *mf* *sfz* *sfz* *p* *fp* *sfz* *mp* *sfz*

Elec.

*3''*

Clar. *more relaxed...* *p* *pp* *p* *mp* *p* *ppp* *f* *ff*

Elec. **4**

*energetically*

*3''*

Clar. *f* *fp* *mp* *pp* *mp* *pp*

Elec. **5** (Starts Section 3 in 8'')

*molto rit...*

*gliss.* *gliss.*

Clar. **3**

Elec. **3** **0**

*pp* *ff* *fp* *p* *fp* *fp* *p* *ff* *pp* *p*

**1**

Clar. *fp* *fp* *fp* *pp* *mp* *pp* *gliss.* *mf*

Elec. **2**

Clar. *poco a poco accel...*

Elec. *pp* *mp* *pp* *mp* *pp*

**3** **4** **5**

Clar. *gradually more relaxed...*

Elec. *mf* *pp* *f* *pp* *fp* *pp*

**6**

Clar.

Elec. **7** **8** (Starts Section 4 in 6.5'')

**4**  $\text{♩} = 160$

Clar.

Elec. **4** **0**

Clar.

Elec. **1**

Clar.

Elec. **2**

Clar. *mp* *mf* *p* *mf* *p* *mp*

Elec. **3**

Clar. *mf* *f* *mp* *f* *f*

Elec. **4**

Clar. *f* *ff* *ff* *ff* *ff*

Elec.

Clar. *ff* *fff* *mp* *pp*

Elec. **5** 8"

Clar. *mp* *pp* *mp* *mf*

Elec.

6

Clar. *mp* *p* *ppp* *p*

Elec.

*poco a poco rit. ...*

5

Clar. *p* *mp* *pp*

Elec.

**5** *Slow and expressive*

**7** (*Starts Section 5 in 6''*)

**5**<sup>0</sup>

Clar. *mp* *mf* *pp* *p* *mf* *pp*

Elec.

*gliss.*

**1**

Clar. *mp* *p* *mp* *pp*

Elec. **2**

Clar. *p* *mp* *pp* *p* *gliss.* *gliss.*

Elec. **3** **4**

*♩ = 80*

Clar. *mp* *pp* *mp* *p* *gliss.* *gliss.* *mp* *pp*

Elec. **5**

Clar. *p* *mp* *ppp*

Elec. **6** *fade out electronics...*

*♩ = 72* *poco rit. . .*