

## Laura Carmichael Technical Information for Composers

### Equipment I use and provide:

- B-flat, A and E-flat Clarinets and Bass Clarinet (to low C)
- Microphones (AMT System 1 and Rode NT 1-A)
- M-Audio interface and preamp (Mobile Pre USB, supports two-channel recording and playback; 1/4 inch outputs)
- Apple 12" PowerBook G4 laptop (864 Mhz)
- Edirol PCR-M1 MIDI Keyboard Controller -- USB MIDI interface with a two pedal controllers possible (sustain/switch pedal and a volume pedal); often used to transmit controller values in MAX MSP or other software.

### Live-Electronics set-up I normally use in combination with my equipment:

A portable PA system provided by the venue (normally a stereo PA system with 2 available inputs (a stereo pair) and a mixer, OR Direct Boxes (DIs) if mixing can be bypassed or automated in software; a monitor.

### Exceptions:

More technically complex set-ups are possible, but then an audio engineer and equipment has to be provided by the venue (four or six channel speakers and mixing, for example). In order to have the option to perform without assistance, the set-up should fit within the specified equipment on the above list (i.e. a stereo set up).

### Software:

MAX MSP (composers should build for use in Run Time)  
Open Music  
LiSA  
Ableton Live  
Supercollider

Tape pieces/CD tracks: also fine (normally with stopwatch timings written in)

### Technical playing parameters:

#### *Clarinet, Extended techniques:*

- 1) flutter tonguing in all registers, all dynamics, with gradated amounts of air in the sound (exception: some difficulty *to start* a note above B above staff with flutter)
- 2) slap tongue, and without pitch, all volumes, up to G on top of the staff (louder in low register); can be done in altissimo register but there is little resonance or pitch, and it easily cracks
- 3) multiphonics, both fingered and harmonically produced; singing and playing microtones, throughout the full range in slow tempi; some limitations in fast tempi (please consult for specifics; primary problems between low E, F, F#, G where pitches must be lipped or keys opened half-way, and A#, B, C, C# in middle of staff where fingerings are possible but awkward)
- 4) color changes including tambre trills, bisbigliando, air in the tone all fine
- 5) glissandi work well in each register (try to avoid going over the break and using the lowest notes between E-G#); ascending and descending in altissimo (C# and up) works very well; ascending is usually easier than descending

#### *Clarinet, Written Range:*

E below middle C, up to A two octaves above the staff for all technical passages; up to the D above that for loud, sustained notes, and less technical passage work

*Bass clarinet, Extended Techniques:*

- 1) flutter tonguing in all registers, all dynamics, with gradated amounts of air in the sound
- 2) slap tongue, all registers, with and without pitch, all dynamics
- 3) multiphonics, both fingered and harmonically produced; singing and playing
- 4) microtones, throughout the full range in slow tempi; some limitations in fast tempi (consult for details); color change on some notes is very noticeable (microtones on bass clarinet are, for me, less flexible than on clarinet because of the closed holes)
- 4) color changes including tambre trills, bisbigliando, air in the tone all fine
- 5) glissandi work less well in chameleon and clarion registers of bass clarinet because of closed holes, but I simulate the effect for intervals of around a 4<sup>th</sup>; it works better in the higher range (try to avoid going over the break and using the lowest notes between C-G#); ascending and descending in altissimo (C# and up) works very well and is extremely flexible; ascending usually easier than descending

*Bass clarinet, Written Range:*

Prefer all notation in treble clef (transposed 9<sup>th</sup>); low C (written below middle C) up to C two octaves above staff for all technical passages; up to the F above that for sustained notes/slower tempi (all dynamics possible)

Notation:

I am open to any kinds of notational systems, and have experience with:

Conventional notation

Graphic notation

Improvisational systems (except jazz lead sheets)

Protocol pieces (written instructions)

Other contemporary notation including sounds and symbols used by Lachenmann, Xenakis, Keuris (i.e. un-even meters), Hosokawa, Yuasa, Berio and other Italian composers (i.e. Ambrosini, Sciarrino, Donatoni, Scelsi)

Extra-musical elements:

I am open to pieces that require speaking, movement or other theatrical elements, or are collaborations with other art forms.