

Diminuendi

- Etude, Prelude, Response -

written for Katherine Williams

Alto Saxophone (dbl soprano saxophone) & electronics

Duration c. 8'

A. Keegan-Bole

22.04.15

Programme note:

This music has a starting point in the research interests of performer Dr. Katherine Williams (who commissioned the work), specifically in her work on Duke Ellington's *Diminuendo in Blue*. It is structured in three movements, each of which plays with the idea of a 'diminuendo' - 'to diminish' in Italian. Normally taken as a 'loud to quiet' indication, I have applied it as a 'harsh to soft' principal which structures each phrase and the work as a whole.

The etude starts in the low, honky register of the alto sax, climbing through the register before ending in the softness of the sub-tone soprano sax register (exacerbated by reverb). The prelude begins with short, harsh phrases but ends in a dreamy, nostalgic atmosphere. The response is a reflection on the previously heard musical materials - it sets some of the harmony in a softer light, smoothly explores a wide range and ends the piece serenely - far away from the very first statement.

I am extremely grateful to Katherine who spent countless, complaint-free, hours workshopping myriad ideas in the studios at Bristol.

AKB

Performance Notes

Performer's Interaction with the Electronic Elements

This piece requires the performer to activate a foot pedal whilst playing. The aim is that the performer can feel more in control of the part for electronics to the extent that synching isn't reliant on matching perfectly with the tape's timings – pacing is malleable and determined by the performer. To further develop this the performer also needs to decide the length of some of the tape cues. These are aleatoric moments in the score (e.g bars 29 & 30) within bounds the software enables the performer to adjust the length of the tape accompaniment at these sections to match the pacing required. However, be conscious that different durations affects the type of sound produced and so will feedback into the musical decisions. Over time these sections may become fixed and so there is space to mark them in the score too.

At points the saxophone sound is manipulated live, the types of manipulation employed are broadly: reverb, granulation and transposition. These effects vary over the course of the piece and are combined in different ways. The sound is captured by a microphone in front of the performer in order to make the most expressive use of these electronic manipulations the performer needs to employ microphone technique – that is moving towards / away from the mic as necessary – exaggerated movements may cause musically satisfying results.

Technical Notes

Software

This piece requires bespoke software created in the MaxMSP environment. The up-to-date software package and details of how to run it can be found and downloaded at www.arthurkeeganbole.com (follow links to the download page).

To access the software you need to provide the following code in a form at the webpage above:

Sc2DePR7329

Within five days of submitting this code (normally 24 hours) you will receive an automated e-mail with instructions – because it is automated, it may be directed to your junk folder.

There are labeled screenshots of the software interface after these notes. Further details and instructions are included with the download.

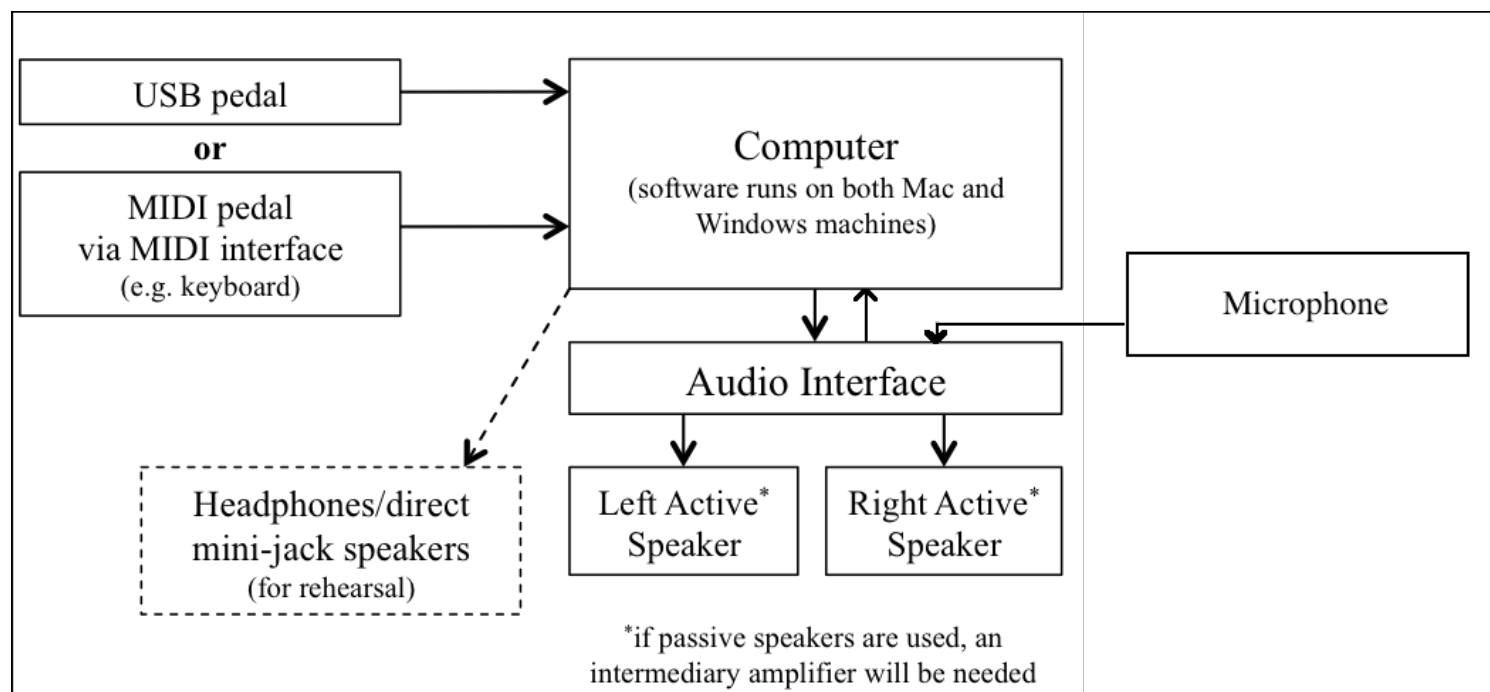
Hardware and sound

The piece requires a pedal connected to the operating computer either by USB or MIDI – instructions for set-up are included in the software. The pedal does not need to be fancy but robust and quiet to operate.

Playback should be via two full range speakers positioned for stereo playback where the performer is at the centre of the stereo image. It is important that the acoustic and electronic parts can meld together, where speaker placement is fixed it may be necessary to add in a little of the saxophone sound to the electronic mix. Speaker placement will have to take into consideration the input microphone to avoid issues with feedback.

The input microphone should have enough space for the performer to feel comfortable and to be able to interact with it physically (see performance notes above). The microphone used in development and for the first performances was a large diaphragm condenser (AKG 414-c). The aim is to get a strong, accurate signal from the saxophone. Whatever microphone used it needs to be shock-mounted to avoid sounds of knocks / vibrations being picked up.

Signal Path and Kit List:



Performance Interface

The screenshot shows a software interface titled "Diminuendi" for a piece by A. Keegan-Bole. The interface includes an "audio on/off" toggle, a "view audio info" button, a "reset (cue 0)" button, a large "17" indicating the current cue number, a red dot for manipulation type, and a vertical "input volume" meter. At the bottom, there are sections for "GRANULATION", "p REVERB", "TRANSPOSITION", and four "TAPE" units (TAPE1, TAPE2, TAPEV1, TAPEV2), each with its own level and meter. Annotations with arrows point to these elements, explaining their functions.

Double-clicking these boxes opens new windows that aid set-up (outline of each below)

This is a clickable level in (click and drag up for more gain) simultaneously it shows live metering of the signal

audio info shows inputs/outputs, hardware and routing

Click here to turn audio on

Reset the programme ready for performance

Current cue number

manipulation type (text) on/off (red dot) and level and meter (below red box)

tape file stream (text) on/off (red dot) and level and meter (below black box)

double-click to open

input volume

0

view audio info

reset (cue 0)

p pedal setup

p rehearsal

p set cue durations

GRANULATION

p REVERB

TRANSPOSITION

TAPE1

TAPE2

TAPEV1

TAPEV2

Red light flashes when a cue is activated

Rehearsal interface

The rehearsal interface is divided into two main sections: a cue control panel and a metronome panel.

- Cue Control Panel:**
 - jump to cue... reset (to cue 0):** A button to reset the program.
 - click and drag to set next cue:** A control for selecting a cue number (currently 0).
 - click here to start:** A button to start the cue.
 - or here to start with a 4 second delay:** A button to start the cue with a 4-second delay (currently 2).
- Metronome Panel:**
 - on/off:** A button to toggle the metronome.
 - click and drag bpm: 100:** A control for setting the metronome tempo.
 - MAKE NOTES HERE:** A text area for writing notes, currently containing "input vol 125".

Callouts provide further instructions:

- "Reset the programme ready for performance" points to the reset button.
- "click and drag this number to choose a cue you want to start from" points to the cue number '0'.
- "once cue number is set click here to start the cue" points to the start button.
- "alternatively click here and it will start after four seconds" points to the 4-second delay button.
- "countdown from 4 shows here" points to the number '2'.
- "metronome on/off" points to the metronome toggle.
- "set bpm of metronome (click and drag number)" points to the bpm control.
- "when on metronome flash will appear here" points to the notes area.
- "text can be written here" points to the notes area.

Set cue durations (see performance notes)

The set_cue_durations interface displays a table of cue durations for different bars and cues. Each duration is represented by a number with a play button icon, and a range of bars is indicated below it.

duration	duration	duration	duration	duration	duration	duration	duration
BAR 29	BAR 30	BAR 35	BAR 36	BAR 37	BAR 38	BAR 39	BAR 40
CUE 9	CUE 17	CUE 19	CUE 24	CUE 25	CUE 32	CUE 33	CUE 39
▶10.0	▶4.00	▶9.00	▶4.00	▶8.00	▶4.00	▶7.00	▶6.00
10 - 34	4 - 18	9 - 28	4 - 18	8 - 24	4 - 18	7 - 20	4 - 18

A callout indicates: "click and drag these numbers to set the cue durations. Using decimal places is fine".

Pedal Setup

M & R Value:
When pedal is pressed, the M value appears in grey.
Click and drag the R value number to match the M value.

If using a MIDI pedal, the port that is receiving MIDI data must be set from the drop-down menu before data can be received

Select the type of pedal you are using

Click here to enable/disable pedal output

[pedal_setup]

NB// PEDALS ARE DISABLED FOR 1/2 A SECOND AFTER BEING ACTIVATED (to avoid accidental double pedalling)

1) Select the type of pedal 2) strike the pedal to see the M value 3) match R value to M value by clicking in the box and dragging 4) test 5) enable pedal output (click in the box)

select by clicking below	M value	R value	MIDI HARDWARE?	Test
MIDI	0	100	to Diminuendi_P...	<input type="radio"/>
USB	29	32	using USB may enable the spacebar too	<input type="radio"/>
NO PEDAL	If not using pedal then right arrow on computer keyboard can be used. Left arrow will activate to previous cue			

ENABLE/DISABLE OUTPUT

Once the R value matches the M value these circles will flash when the pedal is pressed

Diminuendi (Etude, Prelude, Response)

for katherine Williams

A. Keegan-Bole

Etude

♩=76

Alto Sax

flz. ord.

slap tongue or sharp, percussive attack

ff *f* *mp* *pp* *f* *mp* *f* *p* *mf* *p* *mp*



A. Sax.

flz. ord.

p *mf* *molto* *f* *pp* *ff* *f* *p* *f* *mp* *f*

honky, brassy → dolce sim.



Soprano Saxophone (change as quickly as possible)

♩=76

A. Sax.

sub-tones

rit.

p *pp* *p* *pp*

p
gentle, express.
sub-tones where appropriate

CUES

1 gentle reverb/delay

2

Prelude

Alto Saxophone **C.** ♩ = 76

1 flz. **poco rit.** ord. **a tempo** flz. **poco rit.** ord. **a tempo (etc...)**

A. Sax. *mf* *express. pp* *f* *dolce p* *f* *legato pp*

CUES **3** **4** **5** **6** **7**

El. granular reverb

8 flz. *gradual* ord. allow tape to die away **faster** ♩ = c. 84 flz. ord. flz. ord.

A. Sax. *f* *mf* *p* *f* *sfz* *light p* *p < f* *poco*

CUES **8**

El. 10 seconds

13 flz. ord. *gradual* ord.

A. Sax. *mp* *f* *pp* *f* *mf* *p*

faster
c. ♩ = 84

21

A. Sax.

f

exaggeratedly rhythmic, jazzy

molto rit. . . . ,



senza misura
breathe/re-articulate as necessary though entry/re-entry should be soft [___ seconds *]

29

A. Sax.

mf (*cresc. and dim. in sympathy with live transposition*)

phrasing and timing left to performer - rhythm is **not even** adjust dynamic of blown pitch to support chosen phrasing

CUES

9 10 11 12 13 14 15 16 17 18

El.

f (relative to sax)

(chord disperses)

mp

c. ♩ = 84

molto rit. . . . ,

* tallies with software duration settings, can be adjusted throughout rehearsal process

senza misura

35 [___ seconds * shorter than bar 29] [___ seconds *] [___ seconds * longer than bar 35] [___ seconds *]

A. Sax. *mf* (cresc. and dim. in sympathy with live transposition) *mp* (cresc. and dim., sim.)

CUES 19 20 21 22 23 24 25 26 27 28 29 30 31 32

El. *f* (relative to sax) *mf* (relative to sax)

(chord disperses)



39 [___ seconds * shorter than bar 37] [___ seconds *] [___ seconds * shorter than bar 39] TO SOP SAX

A. Sax. *sim.* *sim.*

CUES 33 34 35 36 37 38 39 40 41 42 43 44 45

El. *mf* (relative to sax) (relative to sax) ALL OFF

* tallies with software duration settings, can be adjusted throughout rehearsal process

Response

Soprano Saxophone

Slow

1

Sop. Sax.

p
dolce
express.

poco

legato

molto rall.
senza misura

legato -- staccato -- legato

PPP barely heard

tempo 1 c. ♩ = 76

6

Sop. Sax.

pp
dolce
express.

rubato

*slow, gentle, subtle trill **

poco

tr

12

Sop. Sax.

p

poco

gentle, express.
sub-tones where appropriate

pp