

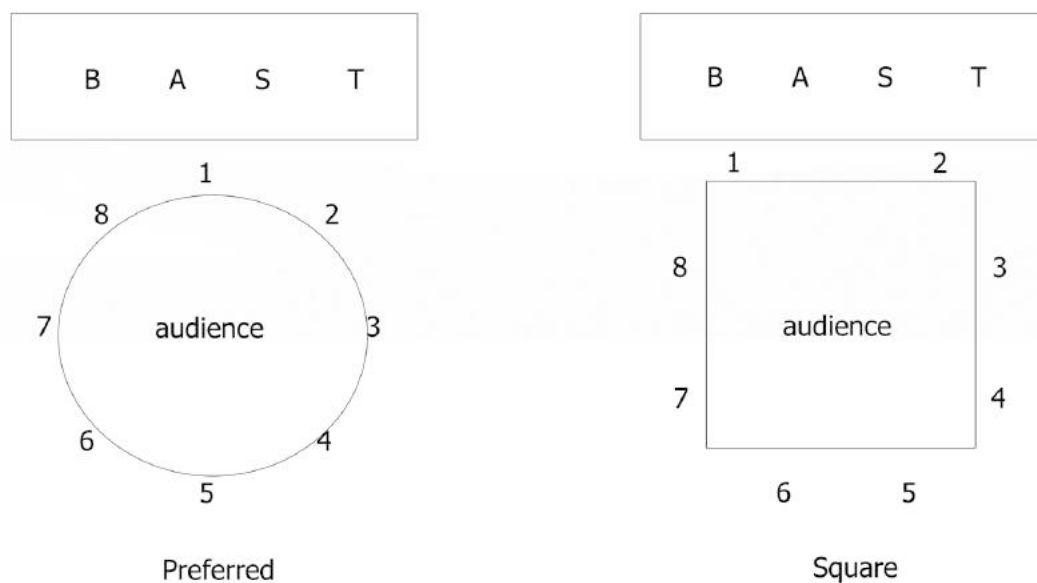


Ecos boreales
ARNÁEZ, Nicolás

INTRODUCTION

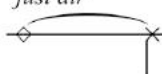
This piece has been written to be performed by a saxophone quartet (Soprano, Alto, Tenor and Baritone) and electronics (real-time processing). A Max/MSP patch, that is in the CD attached, features the electronic part, a Max patch performer is required.

Basically what the Max patch does is to record different parts of the saxophones lines and reproduce them, looped, in a 8 channels system. That is why the saxophones must have one microphone per instrument (4 in total), condenser mics are preferred. The 8 speakers should be surrounding the audience, circular configuration is preferred, other option is put them in a square. Saxophones will go on the stage in the order (left to right): Baritone, Alto, Soprano, Tenor.




1, 2, 3, 4, 5, 6, 7, 8, are the number and location of the channels that must be connected to the Max patch's outputs

SAXOPHONES NOTATION LEGENDS

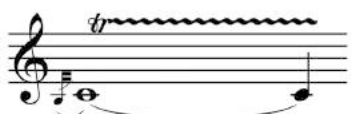
just air
 Just blow through the saxophone without produce any note.

— The three line measures divide the saxophone in 3 parts: Low, middle and high. The notes placed on
 — (or close) to some line suggest to play whatever note in the range that the line belong, being the top
 — one the high range, the middle one the middle range and the bottom one the low range.

just keys
 The x notehead indicate to play just the key of the note or range indicated, without blowing
 (in this case, a note close to the middle range)

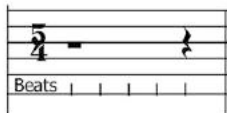
 Keys accelerando to a "as fast as possible"
 played in high, middle, low and finally
 complete register.

 Tremolo between two notes in 5 (o more) times

 Trill played starting by the slashed grace note and then with the regular note,
 switching between them during the time indicated.

- (9) During the long duration notes, circular breathing is preferred. If the performer is not able to do it, he/she should breath when this marks appear. It is recommendable to avoid as more as possible of them (If with one breath can play all the way trough, do it). If the performer can play with circular breathing just ignore this marks.


Max/MSP PATCH NOTATION LEGENDS




The Max patch 6 lines staff shows (top to bottom): AIR, KEYS, SHAKES, FLUTTER and MULTIPHONCS record/play activity. The last line is just a guide of beats.



Letter to be pressed on the keyboard and action realized by pressing. Clicking with the mouse, or using the MIDI device button as well can do it. They Activate/deactivate the recording/playing areas of the patch.

 Dotted line shows recording activity.

 Straight line shows playing activity.

 Dynamics are indicated to be performed with the faders. The performer must ALWAYS avoid playing too loud the buffers. Live sound MUST be always on the top.

 Recording still playing but fader positioned in 0dB

NOTE: This piece contains a very important spacialization work, it is automatized done according to the letter pressed. That's why is important to avoid pressing the letters more times that indicated

Ecoss boreales

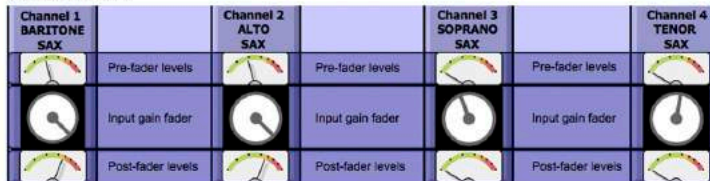
ARNÁEZ, Nicolás

About the Max/MSP Patch

To perform Ecoss Boreales, you will need to have access to a computer with the program Max/MSP. This computer must have a soundcard able to control the 4 analog ins and 8 analog outs required in the Introduction. This patch allows the Max/MSP performer to connect the Behringer BCF3000 MIDI Controller to control Volume/Record Faders, Record and Play buttons. If this device is used, the Max/MSP performer will use the first 6 faders and buttons, the rest 2 are ignored. If the performer does not have this controller, he/she can use the mouse, or the computer keyboard for the performance.

Here some considerations about the patch attached:

INPUT AREA



In this area, the Max-MSP performer will control the volume incoming from the microphones. To have all working he/she should connect the input as is shown (Channel 1: Baritone, 2: Alto, 3: Soprano, 4: Tenor). A pre and Post fader level meter are provided for having a better control over the signals that will be recorded and playing. The Input Gain Fader controls the upcoming signal.

OUTPUT AREA (top)



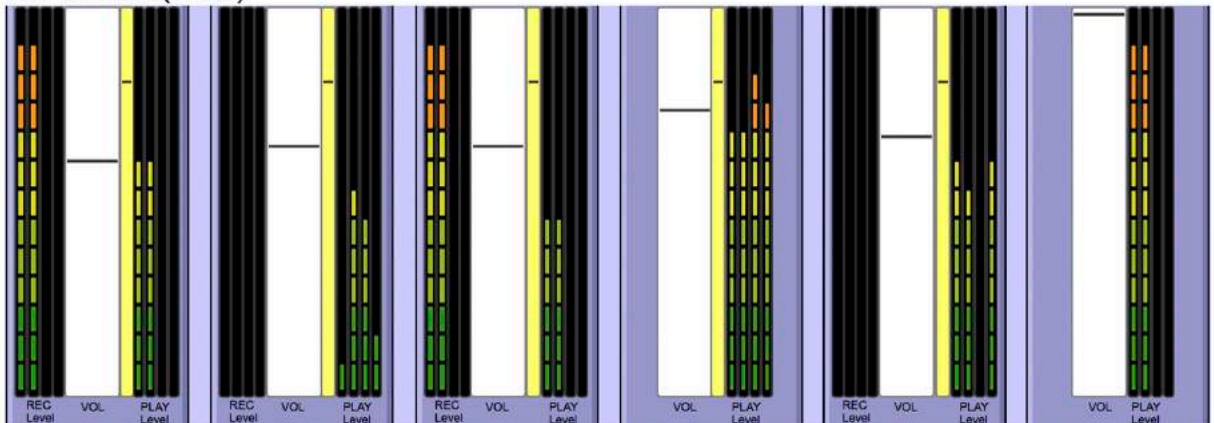
From the left to the right here are presented the 5 slots where saxes will be recorded and played with their respective names. The last one (Live Saxes), controls the volume of the saxophones that play over the recordings.

The line marked as "record" shows the control for turning on and off the records requested in the score. It can be controlled by clicking in the box, pressing the key indicated or using the MIDI controller.

Same is apply for the "play" line.

NOTE: The "Flutter" slot has no recording button because this sample has been previously recorded and load.

OUTPUT AREA (middle)



"REC Levels" shows the signal that is being recording, it just works while recording. "VOL" is the fader to control the volume of the indicated slot. "PLAY Level" show the signal that is being played, is a PF signal that allows the performer to avoid saturations. The yellow fader shows a fade-in/fade-out that is included in all the slots.

OUTPUT AREA (bottom)



If any inconvenient happens during the performance during the recording part, you can load a pre-recorded buffer to keep going the piece. Clicking the white button in the correspondent slot can do that.

SCORE



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♩ = 60 [A1] 0'00"

- This score is written in concert pitch -

Soprano Sax. *just air* *mp*

Alto Sax. *just air* *mp*

Tenor Sax. *just air* *mp*

Baritone Sax. *just air* *mp*

Live Saxes *mf* [Q] Record AIR

[Q] Stop recording AIR

[A2] (ca. 0'30')

S. Sax. *pp* *cresc.* *just keys*

A. Sax. *pp* *cresc.* *just keys*

T. Sax. *pp* *cresc.* *just keys*

B. Sax. *pp* *cresc.* *just keys*

Max

[A] Play AIR

mp

12

S. Sx. *f*

A. Sx. *f*

T. Sx. *f*

B. Sx. *f*

Max (air)

W Record KEYS **W** Stop recording KEYS

16 **B** (ca. 1'15")

S. Sx. *mp* *p* < *mp*

A. Sx. *mp* *p* < *mp*

T. Sx. *mp* *p* < *mp*

B. Sx. *mp* *p* < *mp*

Max (air)

E Record SHAKES **S** Play KEYS *mp*

C1 (ca. 1'45")

20

S. Sx.

A. Sx.

T. Sx.

B. Sx.

Max (air) (keys)

dim.

pp

E Stop recording SHAKES

D Play SHAKES

25

S. Sx.

A. Sx.

T. Sx.

B. Sx.

Max (air) (keys) (shakes)

p

mp

mp

mp

mp

T Record MULTIPHONICS

F Play FLUTTER

4

C2 (ca. 2'35")

S. Sx.

A. Sx.

T. Sx.

B. Sx.

Max (air) (keys) (shakes) (flutter)

29

dim.

flutter

pp

cresc.

dim.

flutter

pp

cresc.

dim.

flutter

pp

cresc.

dim.

flutter

pp

cresc.

T Stop recording MULTIPHONICS

G Play MULTIPHONICS

S. Sx.

A. Sx.

T. Sx.

B. Sx.

Max (air) (keys) (shakes) (multiphonics) (flutter)

34

mp

dim.

mp

dim.

mp

dim.

mp

dim.

mp

38 **D1** (ca. 3'05")

S. Sx.

A. Sx.

T. Sx.

B. Sx.

Max
(air)
(keys)
(shakes)
(multiphonics)
(flutter)

slap tonge sempre slap tonge ord. slap tonge sim

A Stop AIR **S** Stop KEYS **D** Stop SHAKES

Musical score for section D1 (ca. 3'05"). It features five staves: S. Sx., A. Sx., T. Sx., B. Sx., and Max. The Max staff has four horizontal bars representing different techniques: (air), (keys), (shakes), and (flutter). The B. Sx. staff contains the main melodic line with various articulations: 'slap tonge' (measures 38-39), 'sempre slap tonge' (measures 40-41), 'ord.' (measures 42-43), 'slap tonge' (measure 44), and 'sim' (measures 45-46). Fingerings are indicated with numbers 3, 5, 6, and 7. The Max staff has three boxes labeled A, S, and D, corresponding to 'Stop AIR', 'Stop KEYS', and 'Stop SHAKES' respectively.

42 **D2** (ca. 3'40")

S. Sx.

A. Sx.

T. Sx.

B. Sx.

Max
(multiphonics)
(flutter)

ord. mp

F Stop FLUTTER

Musical score for section D2 (ca. 3'40"). It features five staves: S. Sx., A. Sx., T. Sx., B. Sx., and Max. The Max staff has two horizontal bars representing different techniques: (multiphonics) and (flutter). The B. Sx. staff contains the main melodic line with various articulations: 'ord.' (measures 42-43) and 'mp' (measures 44-46). Fingerings are indicated with numbers 3, 5, and 6. The Max staff has one box labeled F, corresponding to 'Stop FLUTTER'.

46

S. Sx. *mp* (*gliss.*)

A. Sx. *mp*

T. Sx. *mp* (*gliss.*)

B. Sx.

Max
(multiphonics)

51

S. Sx. *vib.* **E** (ca. 4'20")

A. Sx. (*gliss.*) *vib.* *vib. simile*

T. Sx. (*gliss.*) *vib.* *vib. simile*

B. Sx. *vib.*

Max
(multiphonics)

56 *vib. simile* *cresc.* *mf* *dim.* *mp* *vib. simile*

S. Sx.

cresc. *mf* *dim.* *mp* *vib. simile*

A. Sx.

cresc. *mf* *dim.* *mp* *vib. simile*

T. Sx.

vib. simile *cresc.* *mf* *dim.* *mp* *vib. simile*

B. Sx.

Max
(multiphonics) *mf*

61 *normal vib.* *cresc.* *mf* *normal vib.* *non vibrato* *mp*

S. Sx.

mp *normal vib.* *cresc.* *mf* *normal vib.* *non vibrato* *mp*

A. Sx.

cresc. *mf* *normal vib.* *non vibrato* *mp*

T. Sx.

mp *cresc.* *mf* *normal vib.* *non vibrato* *mp*

B. Sx.

Max
(multiphonics) *mf* **F** Play FLUTTER *mp*

8

F (ca. 5'32")

66 flutter de a poco *cresc.* flutter *mf* sempre flutter *dim.* *p* *cresc.*

A. Sx. flutter de a poco *cresc.* flutter *mf* sempre flutter *dim.* *p* *cresc.*

T. Sx. flutter de a poco *cresc.* flutter *mf* sempre flutter *dim.* *p* *cresc.*

B. Sx. flutter de a poco *cresc.* flutter *mf* sempre flutter *dim.* *p* *cresc.*

Max
(multiphonics)
(flutter)

G Stop MULTIPHONICS

71 *mf* *dim.* *mp*

A. Sx. *mf* *dim.* *mp*

T. Sx. *mf* *dim.* *mp* *cresc.*

B. Sx. *mf* *dim.*

Max
(flutter)

76

S. Sx. *cresc. f dim. mf*

A. Sx. *cresc. f dim. mf*

T. Sx. *f dim. mf*

B. Sx. *mp cresc. f dim. mf*

Max
(flutter)

f mp **D** Play SHAKES

81

G (ca. 6'43")

S. Sx. *mf dim. mp*

A. Sx. *mf dim. mp*

T. Sx. *mf dim.*

B. Sx. *mf dim.*

Max
(shakes)
(flutter)

mp **F** Stop FLUTTER

85

S. Sx. *mp*

A. Sx. *mp*

T. Sx. *mp*

B. Sx. *mp*

Max (shakes)

89

S. Sx. *mp* *cresc.* *f > p*

A. Sx. *mp* *cresc.* *f > mf*

T. Sx. *mp* *cresc.* *f > mp*

B. Sx. *mp* *cresc.* *f > mp*

Max (shakes)

mf **D** Stop SHAKES

H (ca. 7'40")
slap tonge

sempre slap tonge

93

S. Sx. *f* *mf*

A. Sx. *f* *mf*

T. Sx. *f*

B. Sx. *f*

Max (shakes)

S Play KEYS

mp

96

S. Sx. *cresc.*

A. Sx. *mf* *cresc.* *8vb*

T. Sx. *mf* *cresc.* *8vb*

B. Sx. *mf* *cresc.*

Max (keys)

sempre slap tonge

S. Sx.

A. Sx.

T. Sx.

B. Sx.

Max (keys)

f *mf* *mf*

S. Sx.

A. Sx.

T. Sx.

B. Sx.

Max (keys)

mf *mp*

105

S. Sx. flutter *sfz* *cresc.*

A. Sx. *fp* *mf*

T. Sx.

B. Sx. *fp* *cresc.*

Max (keys)

108

S. Sx. *mf* *p* *mp* *mf* *p*

A. Sx. *mp* *mf* *pp* flutter

T. Sx. *mp* flutter *8va* *mf*

B. Sx. *mf* gliss. *mp* *mf* *mp*

Max (air) (keys) (shakes) (multiphonics) (flutter)

(*cresc.*)

AIR KEYS *cresc.*

111

S. Sx. *ff* *p*

A. Sx. *ff* *p*

T. Sx. *non vibrato* *ff* *p*

B. Sx. *ff* *p*

Max (air) (keys) (shakes) (multiphonics) (flutter)

(cresc.) *ff* **A** **S D** **F G** **F G** *ppp* cresc.

(cresc.) *ff* KEYS SHAKES FLUTTER MULTIPHONICS

116

S. Sx. *dim.*

A. Sx. *dim.*

T. Sx. *dim.*

B. Sx. *dim.*

Max (multiphonics) (flutter)

p *dim.*

121

S. Sx.

A. Sx.

T. Sx.

B. Sx.

Max

(multiphonics)
(flutter)

126

(ca. 10'45")

S. Sx.

A. Sx.

T. Sx.

B. Sx.

Max

(multiphonics)
(flutter)

rit.

pppp

rit.

pppp

rit.

pppp

rit.

pppp

rit.

pppp

G
F