

Dedicated to Lotte Anker and Ture Larsen

Continuous Breach

for Copenhagen Art Ensemble

© Henrik Frisk (2009)

Durata: ~7'00"

Program note

The word breach in the ambiguous title refers to a multiplicity of ideas regarding man and technology. It refers to the breach, the non-continuity, between 0 and 1 within the binary system of our machines (specifically in the machine used to perform the computer part in this piece) as well as the non-continuity between man and machine, or rather, between musician and laptop. This relation is dual by nature: There is a breach between the laptop and its operator as well as between the two as a unit and the rest of the ensemble. This is true audibly because the sounds produced electronically are destined to differ in quality from those produced acoustically. But it is also true conceptually as the relation between the laptop musician and the computer, the interface through which he interacts with the binary universe of the computer, is to say the least, crude in comparison to that of the violinist or the saxophonist of the ensemble. This breach, or discontinuity, has (almost) always been of great interest to me.

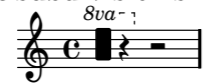
The first part of the title, continuous, is both the antinode of the breach and its source of inspiration. Anything wishes to be continuous does so because somewhere there is a breach to be overcome. But here it also refers (probably linguistically incorrect though) to how the breach, in its wanting to be a discontinuity, becomes a continuous breach. The breach, as defined as a discontinuity in space, is a conceptual continuity in time. These are thoughts that emerged during my writing of the piece and they were part of my thinking before I started working. My (obsessive) fascination for the impossibility to truthfully represent a continuous process with a binary machine is a source of inspiration in this music as well as in most of my work.

Henrik Frisk, June 2009

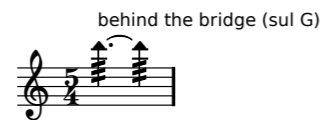
Notes to the score



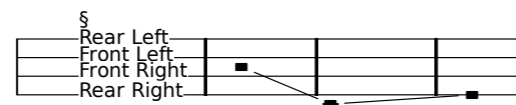
A cross as notehead, in all parts, denote unpitched sounds chosen at the discretion of the performer. These can be key click sounds and slap tongues on reed instruments and tapping sounds on others. The figure notated should only be seen as a suggestion to be varied ad lib. maintaining only the rhythmic subdivision (if a figure is written in 8ths, an 8th note subdivision should be held on to.)



Piano cluster: hit as many notes, pitches as closely together as possible with one or two hands. Mainly used as a percussive effect.



Produce the highest possible pitch at the time, given the context. The pitch itself is not important only the strained sound.

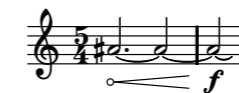


The tabulatura notation of the spatialisation is hopefully self-explanatory: A note between the two innermost lines denotes center front. Perhaps not so evident is that a note on a ledger line above the staff or below the staff both refer to center back. What voice or sound is spatialized follows from the context.

The delay, processing and spatialisation notated in the computer part at bar 69 is performed continuously until bar 134. The computer performer may use what he/she sees fit to create variation in the texture if needed.



The comment given to soprano sax and bass at bars 74-76 is an indication to deviate from the norm, the norm in this case being the violin, violoncello and clarinet. These instruments, joined by the trombone, piano and drums later should play the section from bar 69-134 as precise as possible, without inflection. The bass and soprano sax should not leave the melody, rather should they act as a link between the delayed voices in the electronics and the acoustic instruments.



The diminuendo and crescendo hairpins with circled tips are used throughout to indicate al niente, i.e. diminuendo/crescendo to/from nothing. (See for example violoncello, bar 39.)

List of sound files

1.hit-mix.wav
1.clarinet.wav
1.cresc_end.wav
1.swish-play.aif
1.cresc.wav
1.hit-mix.wav
1.hit.wav
1.swish-play.aif
1.violin.wav
1.cello.wav
2.hit-mix.wav
2.hit.wav
2.violin.wav
3.hit.wav
3.violin.wav
swish-play.FL.aif
swish-play.FR.aif
swish-play.BL.aif
swish-play.BR.aif

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8

15

5/4 $\text{♩} = 120$

Clarinet in Bb
Soprano Sax in Bb
Trombone

Piano

Computer

Spatialisation

Drums

Violin

Violoncello

Bass

repeat ad lib.
p
(key clicks and/or slap trg.)
sfz
as high as possible

repeat ad lib.
3
key clicks and/or slap trg.
sfz
play into mic.
sfzp < mf
sfzp < f
molto vib.
f

repeat ad lib.
7
sfzp
mf

repeat ad lib.
5
5
dampen strings with left hand
sfz
8va-
solo ad lib
mp
mf

① Sample all instruments to buffer 'tapping'.
② granulate buffer 'tapping'
③ spl: 1.violin
④ Sample piano to buffer '1.piano'.
low density (laptop) → high density

Rear Left
Front Left
Front Right
Rear Right

r.s.
choke
ad lib w/ piano
2 3 4 5 6 7 8

ff
sfz
ff
f
ppp
mf

repeat ad lib.
5
5
tapping (left hand only)
sfz
behind the bridge
ff
col legno tratto
ord. sul pont.
sfz < p
sfz >

repeat ad lib.
3 3 3 3 3
tap w. finger (nail) on instrument body
ff
ord. scratch
mp
mf

repeat ad lib.
7
tap w. finger (nail) on instrument body
sfz
ff
f

49

55

41

flutter tng.

open

ff *pp* *mf*

pi

6.5

6

3

8_{sub}

11
spl: 3.violin

12
spl: 1.cello

comb filter on
snare drum

sfz p

vn.

f

f

vc.

f *gliss.*

ff *pp* *f*

58

repeat ad lib.

key clicks and/or slap tng.

62

69

mf
sempre senza vib.

mp cresc.- - - - - ff

pi

13
play sample 'swish-play'

14
spl: 1.cresc

15
spl: 1.cresc_end

Delay vn through 2 zero feedback delays w. 1500ms delay time.

del.1 -> harmonizer +200c
del.2 -> harmonizer -200c

gliss. harm1 -> +200c

gliss. harm1 -> +200c

output of del 1/2 in back speakers throughout

choke

sfz

vn.

vc.

mf
sempre senza vib.

mp cresc.- - - - - ff

74 77 85 93

imprecise, add slight variation
mf

pi

16

Delay vc through 2 zero feedback delays w. 2500ms delay time.

del.3 -> comb filter
del.4 -> comb filter

gliss. harm1 -> +200c
gliss. harm1 -> -200c

output of del 3/4 centered in back speakers throughout

(simile)

(simile)

(simile)

(simile)

Play accents and ad lib. in between - sparsely to begin with but with increasing impetus until bar 134.

vn.
vc.

imprecise, add slight variation
mf
pizz.

This musical score page contains measures 94 through 107. It is divided into three systems: strings (violin and viola), piano, and a combined violin/viola and cello/double bass section.

- System 1 (Strings):** Violin (vn.) and Viola (vc.) parts. Measures 94-107 feature complex rhythmic patterns with time signatures of 3/4, 5/4, 2/4, and 5/4. The music includes slurs, accents, and dynamic markings such as *f* (forte). A note in measure 100 is marked "w/ straight mute".
- System 2 (Piano):** Piano (pi.) part. Measures 94-107 consist of chords and single notes. Measures 100 and 107 are marked "(simile)".
- System 3 (Cello/Double Bass):** Cello (vc.) and Double Bass parts. Measures 94-107 feature rhythmic accompaniment with slurs and dynamic markings like *f*.

Measure numbers 100 and 107 are enclosed in boxes at the top of the page.

111 117 125

Gradually turn into solo ad lib.

ff

(simile)

(simile)

f

gradually move towards soprano solo ad lib.

