

Mathieu Corajod

COLLISIONS

for bass recorder and classical guitar
amplification ad libitum

First performance by Virginia Arancio, guitars, and Teresa Hackel, recorders, on the 24th of September 2016 at the Einstein Center for Fundamental Physics, Laboratory for High Energy Physics, Bern University

As part of the Project "Collisions", produced by the IGNM Bern with video and media artist Marco de Mutiis and the nice help and instructive advices of Prof. Dr. Antonio Ereditato.

The piece is the first one of a cycle with "Vacuum Fluctuations" and "Questions de temps" but it can also be played separately.

Duration: around 2 minutes

Notes on performance and notation

The two instruments collide on each other in the center of the score (what I call the "collision"), where they play together in the same tempo. On the left of the collision are the fragments for guitar. On the right of the collision are the fragments for bass recorder.

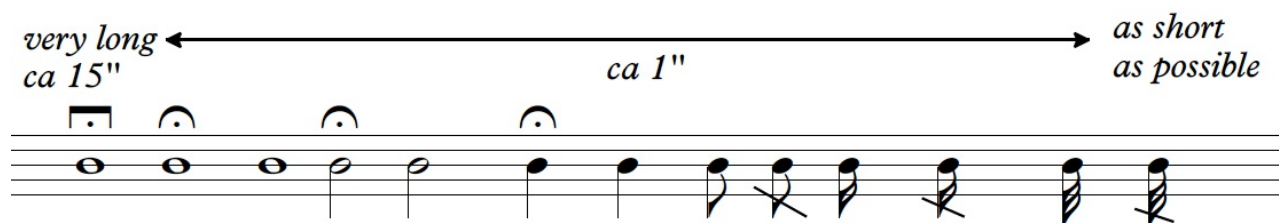
The performers can choose between what I call the "big-bang form" and the "big-crunch form". They should decide before the performance. The big-bang form means starting from the center - from the collision - and then continuing to the fragments. On the contrary, the big-crunch form means starting from the fragments and finishing with the collision. The transition between fragments and collision is only possible from - or to - the fragment linked with a double arrow to the collision. In the big-crunch form, the guitar starts in the upper left corner, and the recorder in the lower right corner.

The piece is inspired by some of the fundamental characteristics of quantum mechanics. The first characteristic is granularity which is symbolized by the fragments. The second characteristic is probability, or indetermination. The performers are playing the fragments almost in the order they want, but they have to take the layout into consideration. It is most likely that the next fragment is right around the precedent one. Small jumps are possible but rarer. The probability of a big jump is extremely low. Besides these aspects of granularity and probability, the third important characteristic of quantum mechanics which plays a role in this composition is the relation. Quantum mechanics doesn't describe static objects but processes, interactions. So the piece is not only open in the order of the fragments played but also by listening to each other, the performers react in their playing, in the timing and the dynamics of the fragments. For more informations on granularity, probability and relation see Rovelli Carlo, *par-delà le visible*, Odile Jacob, p. 119 - 125.

As the piece is about 2 minutes long, the performers should repeat the fragments 1.5 times approximatively (One half of the fragments is repeated, the other half is played just once.) Once started, always play the whole fragment. There are just a few breaks and it is almost never completely silent. The recorder player can take some more breaks than the guitar, while the guitar has to "let ring".

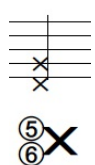
One should print the score in A3 for a good readability.

Notation of the duration:

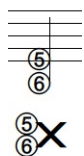


The timbre of both instruments should be very rich and colourful, as "oriental" as a guitar and a recorder can be. I am interested in sound as a pure physical phenomenon in this piece. The sound should be rich, but I am not looking for something like a "human expressivity" in it.

Guitar



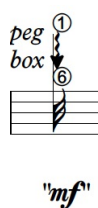
Cross the 6th string over the 5th string at the fret X, play both strings.



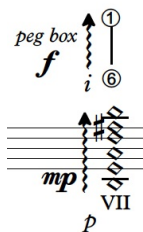
same technique, strings crossed, the fret position is free.



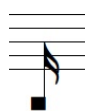
percussive noise created when strings uncross.



play the strings at the peg box, behind the nut. "mf" indicates a nuance of intention.



The index of right hand plays an arpeggio at the peg box. The thumb plays an arpeggio "behind" the left hand (left side of the string).



Golpe, percussion on the wood of the guitar. (sometimes it is notated above the staff, for layout reasons only)



Notes in parentheses indicate only the fingering. These notes resonate when the guitar is stricked with a golpe.



pull the string vertically before striking.



(M for multiphonic) Don't place the finger on an harmonic node, it will create a sound rich in harmonics.

T = Tambora

Recorder

♩ = sputato

COLLISION I

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Guitar

vib. peg s.p. let ring
mf

bend s.p. trill
mp mf

detune and retune g s.p.
① let ring
② gliss. gliss.
③ mp improvise ad lib.

VII peg gliss let ring
mf mp

s.p. ② ④
mp p

flz. gliss.
p

f mp mf

mf

pp

s.p. tasto
gliss. f

peg box f ① ⑥
mp VII p

M sf

peg box ① ① ①
"mf"

gliss. gliss.
mf

T bend gliss. gliss. ①-④
golpe: ppp

mf

mf mp mf

sput
mf mfp < f mf

(XII - XI)
T f ⑤ ⑥

transposable T
T f ⑤ ⑥

gliss. to the position of the next fragment
p sf > p ⑤ ⑥

XII
gliss. from any position to the next position (of another fragment)
T
p ⑤ ⑥

lip vib. p

lip vib. pp

lip vib. p

pitch and volume fluctuate
p

gliss. b
mp p

gliss.
p

lip vib. mp

trill in sextuplet : hammer on and pull off
mf f ⑤ ⑥

flz. gliss. p > ppp

lip vib. p

gliss. b
mp p

gliss.
p

lip vib. mp