

Nicolas Collins

BROKEN LIGHT

for string quartet and modified CD player

February 1991, revised April 1992, final score June 1992

Broken Light is the first in a series of pieces that employ customized consumer electronics in conjunction with traditional instruments to rework tonal material from earlier music, in this case the string music of Corelli, Locatelli, and Torelli. Under the control of the performers, the CD player "scratches" across the disk, isolating and freezing short loops of recorded music. As it slowly steps from one "skipping groove" to the next, the lush contrapuntal texture of the concerto grosso is suspended in harmonic blocks, with the insistent rhythmic feel of the loop superimposed. The performers' parts, both written and improvised, mesh and clash with the CD, with a respectful nod to Terry Riley's In C. Broken Light was commissioned by the Soldier String Quartet, and premiered in May 1991 at the Musique Action Festival in Vandoeuvre-les-Nancy, France.

GENERAL NOTES

Source material

Philips CD #412 739-2, "Pasta" Concerti Grossi

#1	Corelli	op.6 #8	Allegro-Largo	G minor	Track #5
#2	Locatelli	op.1 #8	Vivace-Adagio	F minor	Track #14
#3	Torelli	op.8 #6	Grave-Viv-Ad	G minor	Track #6

STRING TECHNIQUES

Bowing

Detaché: 1 stroke per CD loop, shifting accents

Tremolo: at tempo of CD loop
as fast as possible

Sustained: held long notes ("long bow")

Sul ponticello: near bridge, high harmonics, quiet

Spiccato con legno: wood bounce off strings, quiet

Pizzicato: at tempo

tempo divided, distributed among players (hocket)

Strumming (guitar-style)

Rhythm

Shift accents in standard bowing ("Stravinsky")

Dynamic alternation

Rests: generally play, insert rests

generally rest, throw in occasional hard accent

Rhythmically alternate 2-4 pitches (pattern)

Pitch Material

From current harmony: 1 pitch

double or triple stop

sequence/pattern

Sustain pitch(es) from old harmony into new: then resolve

don't resolve

/ = change (resolve) harmony, independently unless vertically linked.

Broken chord: 4 string/note rolls at tempo (1-2-3-4 3-2-1-2 3-4-3-2, etc.)

Glissandi: slow slide between harmony pitches

quick "bluegrass" slide, can double stop

lead in or lead out of harmony pitch

Vibrato: increase and diminish intensity

"damped harmonic oscillation"

Bends: slide in and out of pitch (blues-style)

Totally dissonant

Other Sounds

Tapping body of instrument

Finger snaps

CD TECHNIQUES

Pause mode with muting off creates fast loops that define tempo.

"Skitter" (S): scratches off to randomly selected track.

"Preset Select" (#n): scratches to specific track (#5, #14, or #6.)

"Nudge" (N): advances CD in pause mode to next harmony.

MISC NOTES

There should be a slight pause (5-10 seconds) between movements.

Mix is critical. For live performance, quartet should be electric, with a little reverb added to blend with CD sound.

PREPARATION OF ELECTRONICS

The following should be done as part of set-up and sound check. The footswitch tests should be repeated immediately before performance if at all possible; if not, be sure to make a visual check of the display.

CD Player should be located near player who will control it, in such a position that the display can be read and the footswitches are easily accessible. Connect CD player to PA via two Direct Boxes; pan channels hard left and right. Level should match that of string quartet -- active mixing may be necessary but should be avoided if possible.

Connect CD player to power supply, and make sure power supply is connected to a 110-120VAC source. Connect blue remote box to "remote" jack on CD player; connect footpedal "breakout box" to remote box; connect 5 footpedals to appropriately marked jacks on breakout box. Optional: connect headphones to CD player for testing. Make sure "hold" switch on front panel is in the left position (ready to play) and "mute" switch on side panel is in the rear position (mute disabled.)

Put CD in CD player. Press "Play" on remote box. Wait 3-5 seconds, then press "Pause" on remote box -- the numeric track display on the CD player should blink to indicate pause mode. Press "Shuffle" on remote box -- "shuffle" indicator should illuminate on CD player.

Press "S" ("Skitter") footswitch; watch the track display and listen with headphones or PA to confirm that the CD player skitters off to a new track, then waits silently in Pause mode. You may hear a quiet rhythmic noise but should not hear the track being played; if the track does play, check that you are really in pause mode (blinking display.) Repeat this process once or twice to confirm that the player is moving to randomly selected tracks, not just the next one up; if not random, check that "shuffle" is illuminated on the display, and press the "shuffle" button until it is.

Press "1" footswitch ("Preset 1") and confirm that the CD player skitters to track 5. Press "N" ("Nudge") a few times to hear "pause loops" from the track. This is a good time to check PA balance with the quartet.

When you have confirmed correct operation of the CD player and remote, hit "S" to send the CD off to a silent pause. Then hit "Shuffle" on the remote box and confirm that the "shuffle" indicator is lit on the CD player display. [Any time you call up a preset track (i.e., 1, 2, or 3) it is necessary to re-enter the Shuffle Mode by pressing "Shuffle" on the remote box.] You are now ready for the performance.

Since the player in pause occasionally gives out stray noises, it is best if the PA engineer keeps the CD muted until you are ready to begin the performance.

Last check before performing: make sure "Shuffle" is lit on display and numeric track display is blinking to indicate "Pause" mode.

Footswitch technique: for "Nudge" and "Skitter" tap switch as briefly as possible. For Presets 1, 2 & 3 hold a little longer (c. 1 second.)

Broken Light

I

vl n1
vl n2
vl q
cello
CD

S S S S S S S S

VARIATION

3x

OPEN REPEAT
c. 3 min.

#1 #2

N N N N N

N N N N N

II

VARIATION

OPEN REPEAT
TO RESOLVE

LAST LOOP

N N N N N N N N N N

N N N N N N N N N N

III

gliss G transition

gliss G

gliss G

gliss G

faster 4x

slower 4x

4x 4x 4x

#3

N N N N N N N N N

N N N N N N N N N

solo

4x

#2

N N N N N

SECTION 1 VARIATIONS

Bowing

Detaché: 1 stroke per CD loop, shifting accents
Tremolo: at tempo of CD loop as fast as possible
Sustained: held long notes
Sul ponticello: near bridge, high harmonics
Spiccato con legno: wood bounce off strings
Pizzicato: at tempo
tempo divided, distributed among players
Strumming (guitar-style)

Rhythm

Shift accents in standard bowing ("Stravinsky")
Dynamic alternation
Rests: generally play, insert rests
generally rest, throw in hard accent
Rhythmically alternate 2-4 pitches (pattern)

Group (IMPORTANT!)

Vary number of players (take rests)
Follow CD dynamics
Interlocking patterns (hocketting)

Pitch Material

From current harmony: 1 pitch
double or triple stop
sequence/pattern
Step to new harmony immediately on CD change
Sustain pitch(es) from old harmony into new:
then resolve
don't resolve
Broken chord 4 string/note rolls at tempo
Glissandi: slow slide between harmony pitches
quick "bluegrass" slide, can double stop
lead in or lead out of harmony pitch
Vibrato: increase and diminish intensity
"damped harmonic oscillation"
Bends: slide in and out of pitch (blues-style)
Totally out of key

Other

Tapping body of instrument
Finger snaps

SECTION 2 VARIATIONS

Number of players active in each CD harmony loop (take rests)
Number of changes: 1 resolution
repeat/alternate old & new pitch
sequence of more than 1 pitch after resolution
Single or double stop
Step or gliss harmony resolution

GENERAL NOTES ON SCORE

Section 1: c.5 minutes

Begins with sequence of alternation of CD Skitters and players mimicking the skitters (Heavy Metal speed guitar). Last group skitter overlaps with beginning of pause loop ostinato. Group crescendo into rhythmic detaché to match loop tempo and harmony; can change pitch once or twice per loop harmony but keep simple. 4 repeats/4 nudges; 1 "bar" = 8-15 seconds. Then c. 3 minutes group variation as described above. Finish with 1 strong detaché bar, CD Skitter, group Skitter.

Section 2: c.4 minutes

Slow movement. Sustained bowing with passing dissonances resolved. Begin with Violin 1 taking pitch from harmony, passed on to Violin 2 at loop harmony change; Violin 2 changes to new pitch for new harmony mid-way through "bar," then passes this new note on to Cello at next harmony change, then viola. Octave change permitted on any pass. Then repeat sequence but add up instruments rather than replacing 1 for 1; each new player can select any previous player's pitch on entry. Once full quartet is in, continue form of sustained bowing, carrying pitch over loop harmony change and then "resolving." Variations as indicated on score. Listen carefully for resolution to F at end; fade out on last breathy CD loop.

Section 3: c.5 minutes

Begins with 4 changes of CD pause loop only -- faster "bar" tempo, c. 5 seconds. Players enter with glisses up or down to G drone with sustained bowing, starting with Cello through to Violin 1. On next loop harmony change, swell to detaché bowing on G as in section 1, and resume 1 "bar" = 8-15 seconds; at next loop harmony can shift to any pitch of harmony. Then a "4 bar" solo for each player ("global" feel, but no campy stylism) with remainder of group "vamping" underneath, using variation techniques of section 1 but keeping a feeling of accompaniment. After last solo, 1 loop harmony of full group energetic detaché, then stop on a dime as CD zips out.