

Four Voice Canon #17
"Guitar Canon"

Larry Polansky
2002

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Spring, 2002
(These notes written Fall, 2003)

The following notes and one page "score" documents the recording of *Four Voice Canon #17* on the Cold Blue Recordings collection of the *Four Voice Canons*. #17 is a very specific realization of the ideas described in *FVC#13 ("DIY Canon")*, and was composed specifically for the studio, and for me to record. However, I encourage other guitarists (or any other string players) to use these basic ideas to create their own live, recorded (or hybrid) versions.

In what follows, I am referring specifically to the recording of the piece, not to other possible realizations. Almost every aspect of the work (tunings, tempi, number of voices, ornaments) may be decided upon by the performer making his own version. This "score" should be used as an example of how one might do that.

FVC#17 is a six-voice canon, each voice played on one of the six strings of the guitar. All pitches are natural harmonics, played at the 4th, 5th, 7th, or 12th frets. Each string is tuned to a different harmonic series-related just ratio, and the tempo ratio for a voice (string) is the same as the tuning ratio. The largest retuning is the low E string down to a low C. (Note that the IV and I strings are retuned only slightly).

The tuning/tempo ratios used are (relative to string VI, with cents deviations from equal-temperament in parentheses):

VI	Down to C, 1/1 (fundamental).
V	Down to G 3/2 (+2¢).
IV	D, 9/4 (+4¢).
III	Down to F#, 11/4 (-49¢).
II	Down to Bb, 7/2 (-31¢).
I	E, 5/1 (-14¢).

Note that these tunings do not respect the octaves of the harmonic series (for practical reasons). The tempi are also adjusted to fit within one "tempo octave". In other words, if the VI string plays at a tempo of mm. = 48, the tempi for the next five strings are 72, 54, 66, 84, and 60.

Each voice consists of 24 four-note groupings, the permutations of four open-string harmonics on a given string. The notation is simply the fret number at which that harmonic is played: C (for 12th fret, using hexadecimal notation), 7, 5, 4. The harmonics are thus the octave, 3rd + octave, double octave, and 5th plus

double octave (yielding the pitches: octave, perfect 12th, double octave, and major 3rd plus a double octave). Many of these pitches are of course replicated on other strings because of the just tuning. On the lowest two strings (VI and V), the open string is used instead of the 12th harmonic (substitute "O" for "C" in the one-page score). The one page of score is thus the score for all voices, except that each is played in a different tempi, and on a different string.

The first note of each four note grouping, in **bold type** in the score, is accented (played with a pick as opposed to fingers for the other notes, in the recording). These accents should be strong in other realizations, and are an essential aspect of the music.

On the recording, the entrance of each voice is marked by a one-octave glissando on the fretless guitar, on that string, up to the first pitch played (a 12th fret harmonic for strings IV-I).

LP

(Hanover, NH 10/21/03)

revised, 12/12/12 (thanks to Giacomo Fiore)

Four Voice Canon #17

“Score” for each of the six strings

(substitute “open” for C (12th fret) for the VI and V strings)

C754 7C54 75C4 754C

745C 475C 457C 45C7

4C57 C457 C547 C574

5C74 57C4 54C7 5C47

7C45 74C5 47C5 4C75

574C 547C C475 C745

Four Voice Canon #17

“Score” for each of the six strings

(substitute “open” for C (12th fret) for the VI and V strings)

C754 7C54 75C4 754C

745C 475C 457C 45C7

4C57 C457 C547 C574

5C74 57C4 54C7 5C47

7C45 74C5 47C5 4C75

574C 547C C475 C745

First String (E)
C = 12 (hex)

C754 7C54 75C4 754C

745C 475C 457C 45C7

4C57 C457 C547 C574

5C74 57C4 54C7 5C47

7C45 74C5 47C5 4C75

574C 547C C475 C745

Fifth String (G)

0754 7054 7504 7540

7450 4750 4570 4507

4057 0457 0547 0574

5074 5704 5407 5047

7045 7405 4705 4075

5740 5470 0475 0745

Sixth String (O)

O754 7054 7504 7540

7450 4750 4570 4507

4057 O457 O547 O574

5074 5704 5407 5047

7045 7405 4705 4075

5740 5470 O475 O745