Homage to Cowell

for keyboard sampler

by Kyle Gann

1994/2026

Homage to Cowell (Tuning Study No. 2) (1994)

Henry Cowell had Leon Theremin construct for him an instrument called the Rhythmicon, which would play rhythms, or pulses, at the same harmonic ratios used for pitch. For instance, a C, E, and G played on the Rhythmicon would pulse at respective rates of 4:5:6, according to the notes' places in the harmonic series. Once I started working with a sampler in the early 1990s, I realized that a looped sample would play back in pulses analogous to the Rhymthicon. So in *Homage to Cowell* I took a single drumbeat, looped it, and tuned a scale to two different harmonic series', one on F and one on B. B is 7/5 of F, so that the Eb 7th harmonic of F and the D# 5th harmonic of B beat at the same rate and are played on the same note. It then became easy to play, on the keyboard, harmonies that would result in quasi-geometric groups of pulses. It was an interesting performance experience, for I would simply hold a chord for a few seconds, and dozens of notes would bounce back and forth in fascinating patterns.

Scale:

E	28/15
D#/Eb	7/4
D	5/3
C#	63/40
C	3/2
B	7/5
Bb	4/3
A	5/4
G#	7/6
G	9/8
F#	21/20
F	1/1

The scale basically divides between pitches related to 1/1 and those related to 7/5:

E		28/15 (4/3)
D#/Eb	7/4	7/4 (5/4)
D	5/3	
C#		63/40 (9/8)
C	3/2	
B		7/5 (1/1)
Bb	4/3	
A	5/4	
G#		7/6 (5/3)
G	9/8	
F#		21/20 (3/2)
F	1/1	

Version 1 of the piece, which I wrote in 1994, never quite satisfied me. It didn’t stick closely enough to the basic idea, nor did it make full use of the scale’s resources. In 2026, 32 years later, I rewrote it, mostly extending and thickening the middle section, and yet making it a little more austere as well.

Performance instructions: To the extent I could reconstruct what I did, I have notated below some of the chords the number of repetitions of the lowest note (and sometimes above the chord the number of repetitions of the highest note). Some improvisation is allowed; I didn't play the piece quite the same every time, but it was the intention that chord changes would come in the rhythm of the lowest note of each chord. Some comparison with the recording is recommended for getting a feel for how to play the piece.

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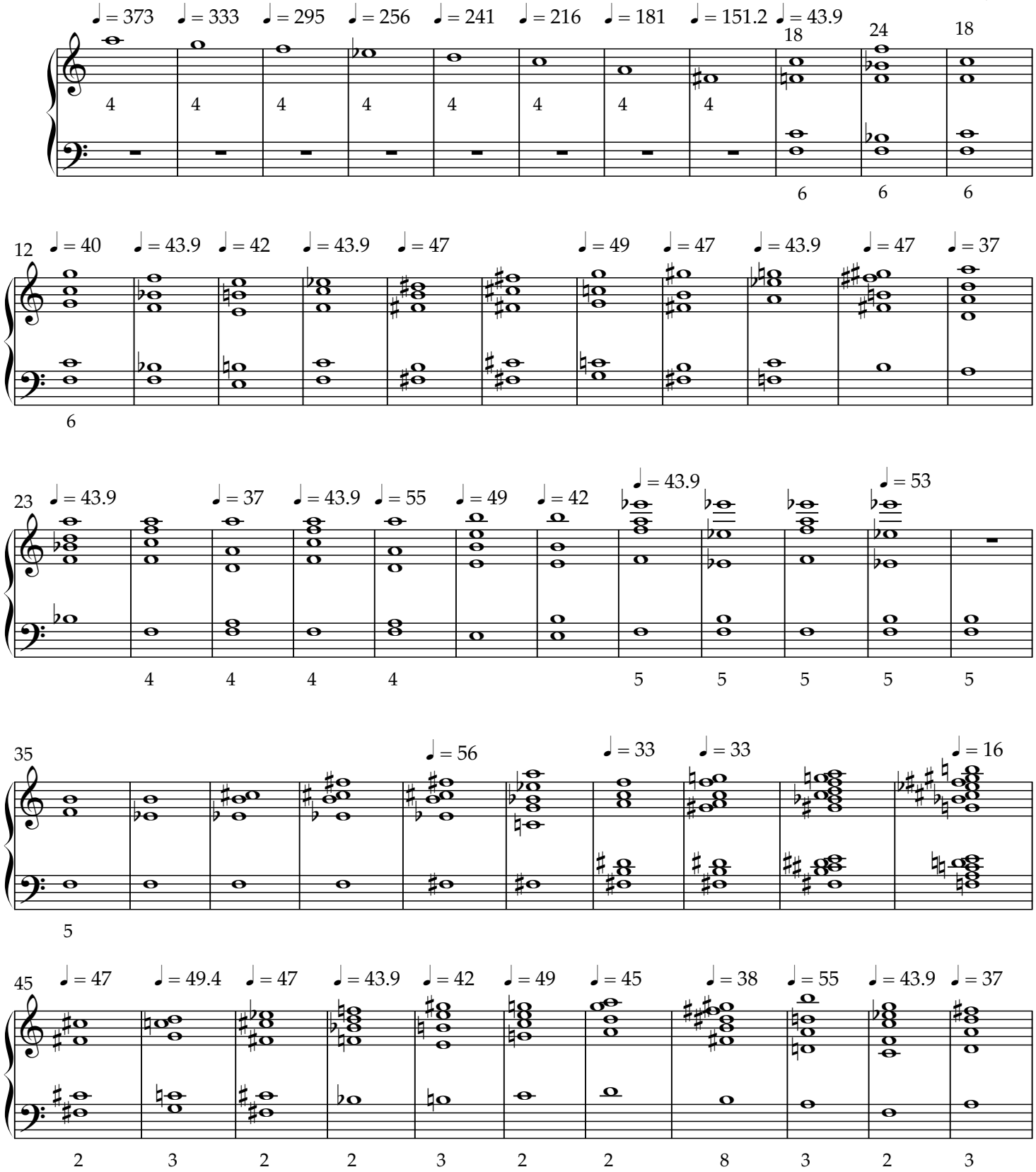

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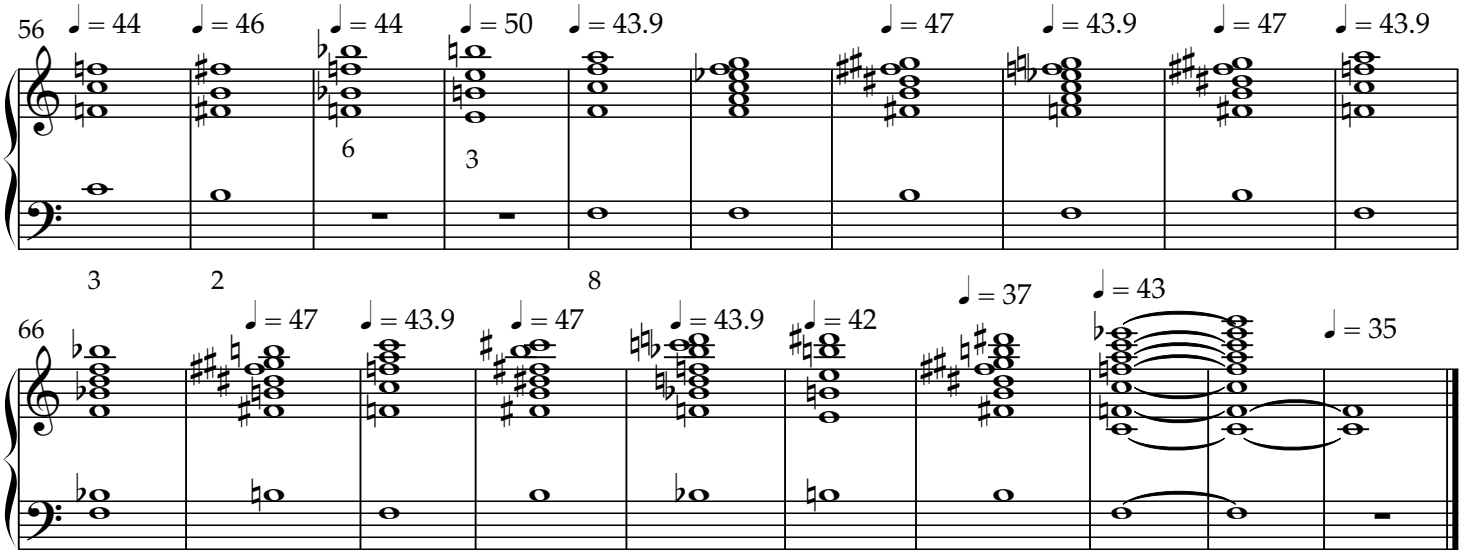

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