

sort of "random walk" in harmonic space that will eventually return (after much meandering) to the original starting pitch. The music's two independent voices are shared among the six guitars, effectively transforming them into a single hyper-instrument.

In the 1990s Tenney moved towards a different compositional approach, possibly as an attempt to rebuke accusations of "excessive euphony" that accompanied some of his earlier output. The pieces in the *Spectrum* series reach much higher in the harmonic series than his previous music; the guitar part in *Spectrum 4* includes partials as high as the 65th harmonic. Unlike the other pieces on this program, however, here the fundamental never changes. The music, which is generated through a statistical feedback algorithm named after the "dissonant counterpoint" practices of Cowell, Seeger, and Ruggles, grows progressively denser and louder, approximating a swelling profile that cuts off abruptly once it reaches its apex.

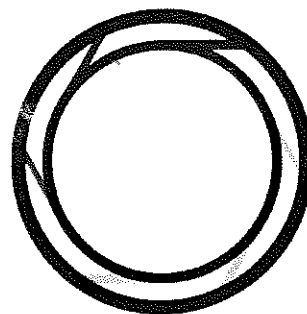
— Notes by Giacomo Fiore

This program was made possible by grants from the Foundation of Contemporary Arts (NYC), and San Francisco Friends of Chamber Music (SF), as well as additional support from the UCSC Music Department.

### **About Tangents Guitar Series**

Tangents is an independent, musician-run concert series, directed by Giacomo Fiore and Paula Lerner. We are fiscally sponsored by Thingamajigs—a 501(c)3 nonprofit organization based in Oakland, California.

[www.tangentsguitarseries.com](http://www.tangentsguitarseries.com)  
@tangentsguitar



# Tangents

contemporary guitar

presents

## Tenney Guitar Project

with

sfSound

SFCM Guitar Ensemble

and others

Saturday 18 April 2015

Center for New Music

San Francisco

## Program

### *Septet* (1981)

San Francisco Conservatory Guitar Ensemble: John Zientek, Ryan Wallace, Zoë Holbrook, Sydd Urgola, Nathaniel Martinez, and Roberto Borbone, guitars; Katrina Gavelin, bass; David Tanenbaum, director

### *Water on the mountain...Fire in heaven* (1985)

Larry Polansky, Samuel Shaloub, Jay Arms, Lanier Sammons, Brian Baumbusch, Giacomo Fiore, guitars; Andrew Smith, conductor

### *Spectrum #4* (1995)

Monica Scott, contrabass; Brendan Lai-Tong, trombone; Benjamin Kreith, violin; John Ingle, alto recorder; Matt Ingalls, bass clarinet; Matthew Goodheart, piano; Giacomo Fiore, guitar; Mark Clifford, vibraphone

### *Harmonium II* (1976–2003)

Larry Polansky and Giacomo Fiore

## Notes

*Harmonium II* (1977–2005) is James Tenney's first work for guitar, and one with a complicated genesis and performance history. Originally the work was composed for two guitars in equal temperament, and developed as a series of modulations between chords of increasing harmonic complexity (from a B major triad to a Gb17, the latter sonority consisting of two overlapping triads a tritone apart, which approximate harmonics 1, 3, 5, 7, 11, and 17), played as hocketing arpeggios by the two guitarist. The premiere was given by Larry Polansky and Claudio Valentini in Toronto in March 1978; however, after a few additional performances Tenney decided to withdraw the piece, reworking it into a version for three harps (this time tuned ~14¢ apart for increased accuracy of intonation), which he called *Harmonium III*. More than

twenty-five years later Tenney, who had since returned to the United States to teach at the California Institute for the Arts, offered a further revised version of the piece to guitarist John Schneider for consideration; *Harmonium II* was thus revived at a Microfest concert in March 2003. This latest incarnation maintains the same harmonic trajectory and hocketing textures of the original, while also incorporating a tuning difference of ~33¢ between the guitars. The finer harmonic fabric highlights the small-step motions of the individual pitches in each of the modulations, and creates a beguiling sonority. From a historical and critical standpoint, it provides the first evidence of Tenney's refined and flexible approach to the intonation of fretted instruments—as further exemplified by his later works for guitar.

In *Septet* (1981) three of the six electric guitars undergo slight tuning adjustments, allowing each to provide a justly-tuned harmonic interval over the fundamental pitch A. The piece unfolds first as a canon highlighting the rhythmic relationships of the harmonic series (what Henry Cowell would have called a Rhythmicana), then increases in harmonic complexity, as players sound the partial corresponding to the rhythmic value they are playing. Thus a perfect fifth (which is defined by a harmonic ratio of 3:2 to the fundamental) sounds three times for every two instances of the fundamental; the major third (5:4) sounds five times over four, and so forth. Two-thirds into the piece, the music pivots around the pitch E (the twelfth harmonic of A), re-interpreting it rhythmically and harmonically as the new fundamental. The rhythms and pitches progressively change to sound a harmonic seventh tonality on E, until the piece finally dissolves into unison Es.

*Water on the mountain...Fire in heaven* takes an altogether different approach to achieve (quasi-) just intervals on standard-issue guitars. The six guitars are pitched ~17 cents apart from one another, yielding a complete 72-step division of the octave. Although tempered, this tuning results in significantly closer approximations of intervals up to the 11th harmonic, compared to 12-tone equal temperament, while also maintaining the same possibilities for modulation. Like *Changes* (a piece for six harps in 72-tone equal temperament from the same period), this piece consists of an algorithmically-generated series of modulations, a