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B E Y O N D 1 2

reinventing the piano



volume 3

For nearly 200 years the piano's design has been exactly the same: 12 keys 7 times, low-to high = left-to-right.

But why 12..? Why left-to-right..? What if...

Beyond Twelve is a project that uses state-of-the-art physical modeling technology to break free from the constraints of this design—and the piano will never be the same again.

Grammy® nominated pianists **Aron Kallay** and **Vicki Ray** premiere new works from America's most visionary composers, who were given two ground rules for these commissions:

- 1) Re-tune the keyboards, from extended just intonation to 88 equal-divisions of the octave and everything in between.
- 2) Re-map the keyboard, left can be right, high can be low; pitches need not be in order.

All compositions from 2012 to 2023, and recorded using Modartt's Pianoteq.

Track List

- | | |
|-------------------------------|------------------|
| 1) FIT (13:05) | Sean Friar |
| 2) HUSH (7:53) | Nina Shekhar |
| 3) CHANGES (6:54) | Bill Alves |
| 4) BLACK TOCCATA (4:56) | Bill Alves |
| 5) ROMANCE POSTMODERNE (7:32) | Kyle Gann |
| 6) ELEVEN (13:34) | Mathew Rosenblum |

Ray-Kallay Duo, keyboards



About Ray-Kallay Duo

The Ray-Kallay Duo (Vicki Ray and Aron Kallay) is dedicated to expanding the sonic possibilities of the multiple keyboard concert, often using two acoustic grands, two keyboards, or combinations of both. In redefining the 21st century piano duo, they also frequently include live electronics and alternate tuning systems in their programs. Their repertoire ranges from the early microtonal works of Ives and Wyshegradsky to the epic *Rad* by Enno Poppe, and from the spectral duo keyboard music of Tristan Murail to the Joni Mitchell-inspired dynamism of Dylan Mattingly. Works specifically written for their unusual and special resources have come from composers as stylistically diverse as Nina Shekhar, Kyle Gann, Sean Friar, Mathew Rosenblum, and Isaac Schankler. They have given numerous world and West Coast premieres and have been featured on the Los Angeles Philharmonic's Green Umbrella series as well as the Music on the Edge Beyond Microtonal Music Festival in Pittsburgh, CNMAT, the California Festival, and Roulette. The LA Times called their 2012 Grammy nominated recording of John Cage's *Music of 10,000 Things* "exquisite... every sound sounded considered, alive, worthy of our wonder." Both artists are core members of Piano Spheres, a new music series in Los Angeles devoted to modern piano repertoire.



Photo: Brandon Rolle

“exquisite... every sound sounded considered, alive, worthy of our wonder”

— LA TIMES

“Ray seems to pull sonorities out of the instrument by sheer magic, a harvester of sounds rather than a hammerer of keys. With a pianist like Ray at the keyboard, anything is possible.” — I Care If You Listen

“Kallay’s performance is that of a Liszt for the modern era, of a live electricity that is unforgettable” — FANFARE

Notes

Fit is about two very different kinds of ideas trying rather hopelessly to fit in with one another. Both pianos represent certain identities that are, at first, willing to sacrifice certain aspects of themselves in order to fit in with the other. At the outset of the piece, our default tuning system, Equal Temperament, comes out as the dominant one and defines the musical material of the piece on its terms, making it quite difficult for any other tuning system to follow its lead. The confident and swaggering material presented in Piano 1 takes advantage of Equal Temperament's unique ability to make triads a tritone apart (C major and G-flat major) intervallically equivalent to one another. Piano 2 tries effortfully to copy this material in a variety of ways: at first, it uses a tuning system that gives it a variety of ways to approach the first chord but no means of approaching the second; next, it uses a tuning system that gets remarkably close to Equal Temperament but is still slightly at odds; eventually, Piano 2 chooses to be itself and settle into a tuning system that is dramatically different from anything else we've heard. There is at first conflict between the two tuning systems but eventually Piano 1 becomes interested in trying to do things Piano 2's way, but that also doesn't last. The push and pull between the two pianos and tuning systems continues as the pianos try to find ways to make music together while both being themselves. (Sean Friar)

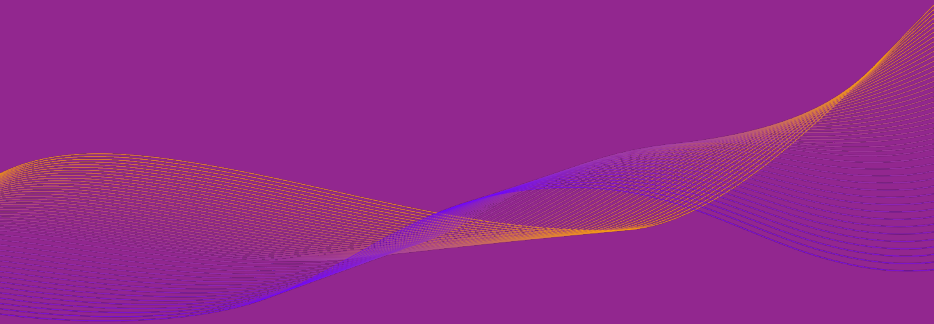


Photo: KT Friar

Composer and pianist **Sean Friar** grew up in Los Angeles, where his first musical experiences were in rock and blues piano improvisation. His music keeps in touch with the energy and communicative directness of those musical roots, now along with an expansive and exploratory classical sensibility that is “refreshingly new and solidly mature... and doesn’t take on airs, but instead takes joy in the process of discovery [and] in the continual experience of suspense and surprise that good classical music has always championed.” (Slate Magazine).

He regularly composes for ensembles within and outside traditional concert music. His output ranges from works for orchestra and chamber ensembles to a junk car percussion concerto, music for laptop orchestra, and microtonal piano duo. He has received commissions from the Los Angeles Philharmonic, Berlin Philharmonic Scharoun Ensemble, American Composers Orchestra, Alarm Will Sound, Ensemble Modern, Cabrillo Festival, New York Youth Symphony, Redlands Symphony, NOW Ensemble, the Eastman Wind Ensemble, the Curtis Institute, and Present Music. His music has been featured at venues and festivals around the world including Aspen, Bang on a Can, Bowdoin, Cabrillo, Carlsbad, Carnegie Hall, GAUDEAMUS, International Young Composers Meeting, ISSUE Project Room, the Kitchen, Le Poisson Rouge, NASA, Norfolk, Nuova Consonanza, Roulette, SONIC, the Venice Biennale, Walt Disney Concert Hall, and the World Saxophone Congress.

Friar is Chair of Composition at the Lamont School of Music at the University of Denver. He also directs summer composition programs at Sunset ChamberFest (Los Angeles), Suncoast Composer Fellowship Program (Sarasota), Lamont Summer Academy (Denver), and previously at the Idyllwild Arts Academy. Before joining the University of Denver, he was Assistant Professor of Practice in Composition at the University of Southern California Thornton School of Music, and before that, Lecturer of Composition at the UCLA Herb Alpert School of Music. He holds a Ph.D. in Music Composition from Princeton University and undergraduate degrees in Music and Psychology from UCLA. His principal teachers were Paul Chihara, Paul Lansky, Steven Mackey, and Dmitri Tymoczko.



I wrote **hush** during a time when I wanted nothing more than a hug. The uncannily saccharine sounds of the piece are meant to surround and envelop the listener as similar to how an infant might be swaddled when held in their mother's arms. The piece is scored for two microtonal pianos using alternate tuning systems reminiscent of a music box. Over time, the tuning is further warped, creating a haunting and unearthly emotional effect. Though lullabies are generally used to soothe a child to sleep, they are often even more meaningful for the mother who sings them, and the lyrical content of many historical lullabies is dark and lamentful. **hush** tries to capture this duality, portraying the sweet, yet eerie nostalgia of childhood. (Nina Shekhar)

Nina Shekhar is a composer and multimedia artist who explores the intersection of identity, vulnerability, love, and laughter to create bold and intensely personal works.

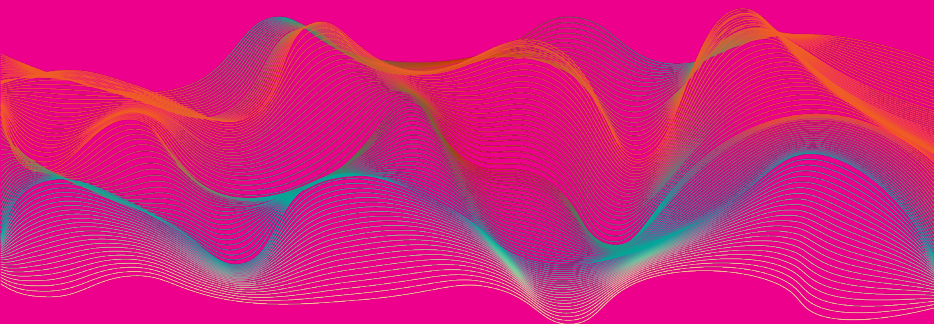
Described as “tart and compelling” (New York Times), “vivid” (Washington Post), and an “orchestral supernova” (LA Times), her music has been commissioned and performed by the New York Philharmonic, LA Philharmonic, Nashville Symphony, Minnesota Orchestra, Seattle Symphony, Louisville Orchestra, Sarasota Orchestra, Oregon Symphony, Albany Symphony, Los Angeles Chamber Orchestra, New World Symphony, Civic Orchestra of Chicago, Eighth Blackbird,



Photo: Shervin Lainez

International Contemporary Ensemble, JACK Quartet, New York Youth Symphony, Alarm Will Sound, The Crossing, and Chamber Music Society of Lincoln Center. Her work has been featured by Carnegie Hall, Hollywood Bowl, Kennedy Center, Metropolitan Museum of Art, Walt Disney Concert Hall, Library of Congress, and National Gallery of Art.

Aside from composing, Shekhar is a versatile performing artist as a flutist, pianist, and saxophonist. She has been featured by the National Flute Association, and she has performed in the Detroit International Jazz Festival. She is a first-generation Indian American and a native of Detroit, Michigan.



Changes and **Black Toccata** are independent pieces that can be played as a diptych. “Changes” is based on the ancient English art of change ringing, a method of continually permutating the order of bells rung in a church tower. “Black Toccata” was inspired by the interlocking patterns of Balinese gamelan music, but here played entirely on the black keys of the piano keyboard. Both works are tuned in the same just tuning system, that is, through true proportions, specifically the third and seventh harmonics found in the natural vibrations of strings. (Bill Alves)

Bill Alves is a composer, writer, and video artist engaged in the intersections of musical cultures and technology. His recordings include *The Terrain of Possibilities*, *Imbal-imbalan*, *Mystic Canyon*, and *Guitars & Gamelan*, and his work with computer animation pioneer John Whitney inspired abstract computer animations with music, released by the Kinetica Video Library as *Celestial Dance*. He first studied the music of Java and Bali during a 1993-94 Fulbright fellowship and is now the director of the HMC American Gamelan, a group that performs new compositions on Javanese instruments tuned to just intonation. He is the co-author of the biography *Lou Harrison: American Musical Maverick*, and his book *Music of the Peoples of the World* is now in its third edition from Cengage/Schirmer. He has extensively explored non-standard tunings in his work and is co-director of

MicroFest, the annual Southern California festival of microtonal music. Bill Alves is the Miller Professor of Humanities at Harvey Mudd College of the Claremont Colleges in Southern California.



Photo: Tom Wolff

Romance Postmoderne (2012) is a tuning study, a kind of rewriting of a Romantic genre, on 33 harmonics of E-flat. Through the early 2000s, as I wrote microtonal pieces, I found myself inventing scales whose pitches were more and more drawn from a single harmonic series. Finally, in 2012 I decided to try using the harmonic series as my sole resource. I was so happy with the result that I later wrote my magnum opus *Hyperchromatica* in the same scale. *Romance Postmoderne*, slightly ironically titled, drifts languidly from tonality to tonality (all of them within the harmonics of E-flat) via the smallest of melodic steps. (Kyle Gann)

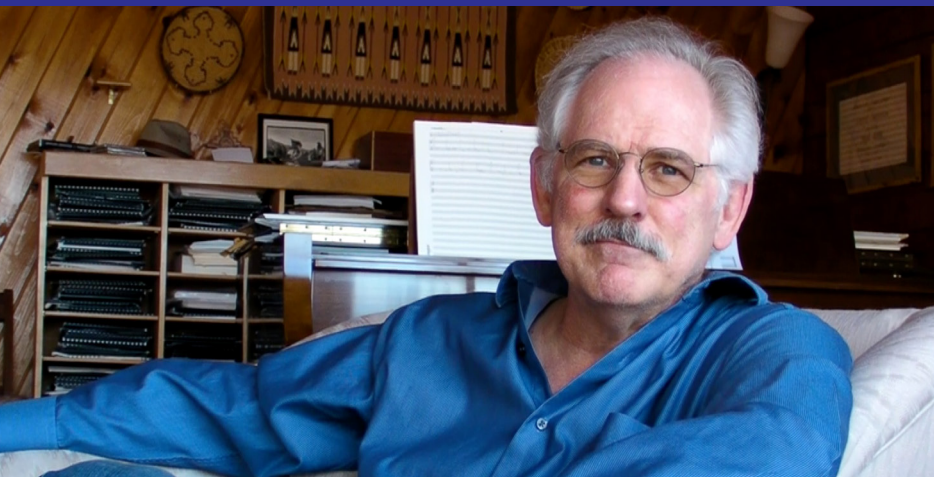
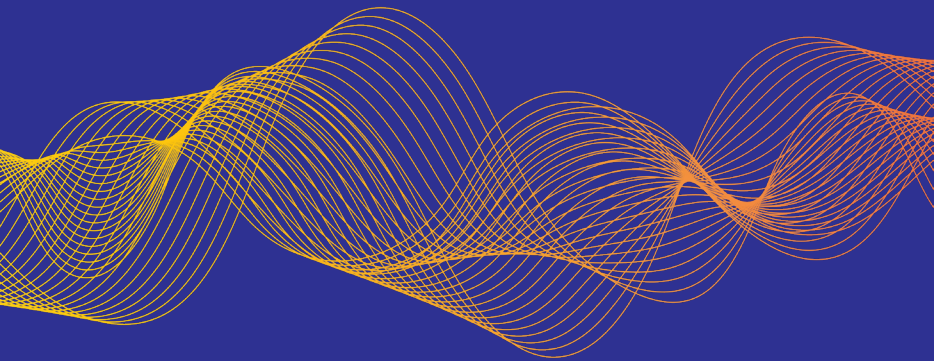


Photo: Ed McKeon

Kyle Gann (b. 1955 in Dallas, Texas) is a composer and the author of seven books on American music, including books on microtonality, Charles Ives's *Concord Sonata*, John Cage's 4'33", Conlon Nancarrow, and Robert Ashley. He studied composition with Ben Johnston, Morton Feldman, and Peter Gena, and about a fourth of his music is microtonal. His major works include two piano concertos, a symphony, *Transcendental Sonnets* for chorus and orchestra, the microtonal music theater piece *Custer and Sitting Bull*, *The Planets* for mixed octet, and *Hyperchromatica* for three retuned, computer-driven pianos. Since 1997 he has taught at Bard College, and from 1986 to 2005 he was the new-music critic for the *Village Voice*.



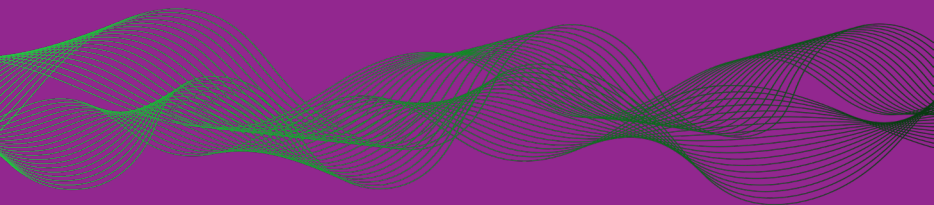
When I began writing **ELEVEN**, a commission from the Ray-Kallay Duo, I did not set out to write a tribute to the victims of the Tree of Life shooting (the massacre that occurred four blocks from my home in Pittsburgh on October 27, 2018). In the end, however, in an oblique way, I believe that is what I have done. Certainly the TOL event was weighing heavily on my mind when I was writing this piece. After the work was completed, I was surprised to see that the contemplative middle section included eleven short phrases, perhaps a subconscious tribute to each of the victims that perished. It seemed appropriate to title the piece “Eleven,” in honor of those who were killed, wounded, or otherwise impacted by the events. “Eleven” uses several tunings in combination including twelve-tone equal temperament, nineteen-tone equal divisions of the octave (slightly tweaked for additional resonance), and a twenty-one-tone system of my own design. (Mathew Rosenblum)

Mathew Rosenblum’s compositions offer “an ear-buzzing flood of sound, rich in unusual overtones” (*The Boston Globe*). A wide array of groups have commissioned, performed, and recorded his music such as the Boston Modern Orchestra Project, the Polish National Radio Symphony Orchestra, the Pittsburgh Symphony Orchestra, the Raschèr Saxophone Quartet, the Pittsburgh New Music Ensemble, FLUX Quartet, Mantra Percussion, as well as many others. Using a variety



Photo: Josh Brown

of tuning systems, his work does not live within traditional boundaries, creating a compellingly fresh landscape. His music has been performed throughout the world including at the Gewandhaus in Leipzig, Prince Mahidol Hall in Bangkok, the China-ASEAN Music Week in Nanning, the Tonhalle in Düsseldorf, Sala Nezahualcóyotl in Mexico City, and at Carnegie Recital Hall, Merkin Hall and Miller Theatre in New York City. Honors include a Guggenheim Fellowship, three Fromm Foundation Commissions, a National Endowment for the Arts Music Fellowship Grant and a Barlow Endowment Commission. He received degrees from the New England Conservatory of Music and Princeton University and is co-director of the Music on the Edge new music series and former Chair of the Department of Music at the University of Pittsburgh. His works appear on the MODE, New World Records, Cantaloupe Music, Albany, New Focus Recordings, BMOP/sound, Capstone, Opus One, Blue Griffin, and CRI Emergency Music labels and is published by C.F. Peters Corporation and Pluralbelle Music (distributed by Subito Music Corporation).







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