



a r o n k a l l a y

BEYOND 12

reinventing the piano

volume 2

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 pianist **Aron Kallay** premieres new works from eight of America's most visionary composers, who were given two ground rules for these commissions:

- 1) Re-tune the keyboard, 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 2004 to 2015, and recorded using Modartt's Pianoteq.

Track List

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| 1) SIDEREAL DELAY (4:49) | Jeffrey Harrington |
| 2) I'M WORRIED NOW (12:47) | Monroe Golden |
| 3-6) CLOUDS OF CLARIFICATION (18:55) | Robert Carl |
| <i>Introduction: Ebb and Flow ~ Maestoso: Earth Processional</i> | |
| <i>Scherzo: Wind Dances ~ Coda: Consumed by Fire</i> | |
| 7) UNE PETITE BAGATELLE (1:47) | Veronika Krausas |
| 8) TERÇOS (2:56) | Veronika Krausas |
| 9) INVOLUNTARY BOHLEN PIERCING (5:48) | Nick Norton |
| 10) THE BLUR OF TIME AND MEMORY (5:51) | Alexander Elliott Miller |
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About Aron Kallay

Described as a “modern renaissance man,” (Over the Mountain Journal)

Grammy® nominated pianist Aron Kallay’s playing has been called “exquisite...every sound sounded considered, alive, worthy of our wonder” (LA Times). “Perhaps Los Angeles’ most versatile keyboardist,” (LaOpus) Aron has been praised as possessing “that special blend of intellect, emotion, and overt physicality that makes even the thorniest scores simply leap from the page into the listeners laps.” (KPFK) Aron’s performances often integrate technology, video, and alternate tunings; Fanfare magazine described him as “a multiple threat: a great pianist, brainy tech wizard, and visionary promoter of a new musical practice.”

Aron performs throughout the United States and abroad and is a fixture on the Los Angeles new-music scene. He is the co-founder of People Inside Electronics (PIE), a concert series dedicated to electroacoustic music, and was the managing director of MicroFest, Los Angeles’ annual festival of microtonal music. Aron is the founder and director of Brightwork newmusic and the underground concert series Tuesdays @ Monk Space. He is also the co-director of MicroFest Records. Aron has recorded on MicroFest, Cold Blue, Delos, and Populist records. In addition to his solo work, Aron performs regularly with the Brightwork ensemble and Ray-Kallay Duo, and is a frequent sub with the LA Phil. He is on the faculty of Pomona College and lives in Southern California with his wife and daughter.



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— LA TIMES

“Perhaps Los Angeles’ most versatile keyboardist” — LA OPUS

“Kallay is a multiple threat: a great pianist, brainy tech wizard, and visionary promoter of a new musical practice. Beyond highly recommended.”

— FANFARE

Liner notes

Sidereal Delay is the third piece in a suite of 4 preludes written in 2004, using 19-EDO, the tuning derived by dividing the octave into 19 equal divisions. The music explores formal tropes related to popular electronic music, including looping, digital delay rhythms and the trippy visions of “space music” as practiced by composers like Terry Riley, et al. Through a series of episodes, each beginning similarly, the beautifully in tune resonant harmonies are explored, occasionally erupting in a explosive New Orleans-inspired tune. The piece slowly explores the radically unique tonalities of the scale and materials until climaxing in a series of episodes which expose the wonderful new added voice dissonances available in 19-EDO until climaxing in a section of wild harmonies evocative of an almost extraterrestrial jazz.

-Jeffrey Harrington

I'm Worried Now was written for Aron Kallay and the Beyond 12 project, and loosely based on “Worried Man Blues” – a traditional tune of uncertain origin that has crossed genres, even making its way into my son's lullaby repertoire. Despite an often jaunty rendering, the stanzas describe horrors of penal servitude. Our rightfully worried protagonist is imprisoned for a questionable offense, then sentenced to 21 years of hard labor on the railroad line with 13 links of chain

around his leg. The tune and lyrical content informed the tunings, which in turn informed the music. There are five Extended Just tunings, (1) 13-limit with a common tone functioning as different partials, (2 and 3) utonal bass notes with a treble drone in octaves, (4) a lower tetrachord encompassing the black keys and upper tetrachord encompassing the white keys, ranging to the 91st partial, and (5) a I-IV-V relationship with the keyboard divided into three zones, each with partials up to 23. -Monroe Golden

My third piano sonata, **Clouds of Clarification**, is a further step in developing an overtone-based harmonic practice. It was inspired by my encounter with Aron Kallay, and his re-tunable digital grand piano, whose PianoTeq software allows instantaneous tuning changes, of any sort. This gave me permission to attempt a realization in precise tunings of an approach that up to this point I had undertaken only in equal temperament.

The piece is a realization of an earlier work of mine, Changing My Spots, an open-form improvisation of indeterminate time and instrumentation. That piece presents six harmonic regions: each consists of the twelve pitch-classes of the total chromatic, arranged registrally where they fall most closely with the nearest overtones off a given fundamental. Each region has the same structure and voicing, transposed

to a different fundamental. Common partials between regions can be used as “pivots” for modulation.

This work takes this structure and creates a “frozen improvisation” based on the earlier schema. But for the first time, thanks to the digital setup, each region is able to preserve the actual just intonation tuning of its twelve pitches based on overtones in relation to their respective fundamental. Thus each will be a truly “pure” interval.

My whole approach to harmony over the past 15 years has been to find models that evoke processes and results similar to the flow and products of nature. I do not of course think that art equals or surpasses nature, only that the two exist symbiotically, art being a sort of “parallel universe” that helps us to understand, interpret and ultimately engage more fully with our world. This work attempts to bring that interaction into the sound itself, in a manner that to this point I’ve been unable to achieve.

I am grateful to Aron Kallay for his willingness to enter into the process of the piece’s development with his instrument, a fruit of technology that even a decade back was inconceivable.

While writing this work in 2014 in the very “sound-shadow” of the rhythms of the Mediterranean Sea (just outside my studio window), I could not help but be influenced by the presence of deep, “tidal” rhythms. Thus, a four-movement structure emerged that suggests an “Elements” suite--water, earth, air, and fire. In addition, the final movement serves as a summation-coda, where elements of the previous movements rapidly intercut between one another, and there is a sense of compression. It ends in a consummation that leaves only a few floating ashes. -Robert Carl

Une Petite Bagatelle is from 2013. This reimagining in 2/7 comma meantone tuning reflects the whimsy of the work.

Terços was Commissioned by Grammy-nominated pianist Aron Kallay for his second Beyond 12 CD of microtonal works for piano. Terços is Catalan for thirds and the tuning of this work is Pythagorean, where all but one of the 5ths is pure, yet the 3rds are variable. -Veronika Krausas

The second-to-last step in my PhD qualifying exams was to compose a piece in 48 hours, using some parameters to make sure I didn't cheat and use something I'd already written. My advisor, Clarence Barlow, knowing that I'd wanted to write something for microtonal piano

for Aron Kallay's Beyond 12 project, graciously gave me an assignment to write a piece using Bohlen-Pierce temperament. Bohlen-Pierce temperament uses the 12th instead of the octave as the interval of transposition and inversion, and then divides that 12th into thirteen step equal temperament. The result of it is that everything sounds crazy.

After a day wasted trying to wrap my head around the math, I just decided to improvise at my keyboard and find sonorities I liked, then mash them into a piece. Since then I've revised **Involuntary Bohlen Piercing** to being worthy of Aron's expert playing. Aron premiered the piece at the Outpost Concert Series in Riverside on November 4th, 2015. I'm thankful that I got the chance to write it for him, involuntary or not. -Nick norton

The Blur of Time and Memory was composed in 2014 for Aron Kallay's "Beyond 12" series. The piece itself utilizes a tuning system in which half steps are divided into five equal tempered steps, but selected pitches are removed from the keyboard in segments altogether, allowing the 88 keys to cover a wider range. This allows for some moments of equal tempered harmony, mixed with various glissando effects on the keyboard. I feel that those glissando effects, combined with the pedal, created some of the inspiration for the title, where

lines between notes are blurred, where the clarity of a chord may begin to melt away and disappear behind a fog. -Alexander Elliott Miller

“Paths of the Wind” was suggested by the Vayu Purana, a Hindu text I learned of during a period of study in India. The wind passing over bamboo or the vocal cords is the mythical origin of music in many traditions, and the wind is also the conveyance from the human world to the heavens. The tuning of this work is based on interlocking pathways of numbers, namely two, three, and seven. It was completed in 2010 at the request of pianist Aron Kallay, to whom the work is dedicated. -Bill Alves

Although I have been a fan of microtonal music for a long time, frequently listening to it, studying it, and performing it, I'd never written any myself until 2013. I was very glad to receive the commission from the wonderful pianist Aron Kallay for a microtonal piece. I was influenced in my choice of tuning for the work by listening to traditional Thai music that uses a pentatonic subset of a 7-note equally tempered scale. (In my piece, there's one passage near the end where the listener may detect this influence). I added half steps, ending up with a 14-note equal temperament, which allowed me to extract extra melancholy from the weasel's burrow. I also enjoyed the novel intervals that the tuning provided, in particular the extra thirds and sixths which

give the piece a somewhat Romantic tone. The opening bars of **The Weasel of Melancholy** were composed during a summer 2013 residency at the Virginia Center for the Creative Arts, the rest of the piece later that fall. -Eric Moe





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