



AMERICAN FESTIVAL OF MICROTONAL MUSIC  
under the direction of Johnny Reinhard  
*presents*

***MicroFest 2005: 25<sup>th</sup> Anniversary***

Friday, April 8, 2005  
Faust Harrison Pianos at 205 West 58<sup>th</sup> Street

**PROGRAM**

<b>Hot Tempered Arpeggios</b>	6'	Timothy Polashek
<b>BlackandJill</b> Meredith Borden, soprano	9'	Joseph Pehrson
<b>Shadow</b> Maja Cerar, violin	14'	Douglas Geers
<b>Ooogaah: Dungeony Specimen Spaceship</b>	11'	Christopher Bailey

**Intermission**

<b>Bathyscaphe</b> Marcus Bittencourt, ring-modulated piano	18'	Marcus Alessi Bittencourt
<b>Lunar Crescent</b> Matthew Polashek, saxophone	7'	Douglas Geers
<b>Sonata</b>	11'	Timothy Polashek
<b>Mergurs Ehd Ffleweh bq Nsolst</b> Sukato, voice Matthew Polashek, saxophone	6'	Christopher Bailey

Pianos tuned by Marc Weinert

Co-Produced by Faust Harrison Pianos  
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**about the Electric Music Collective:**

[www.emcollective.org](http://www.emcollective.org)

The Electric Music Collective is an organization of electroacoustic composers based in New York City. EMCollective is dedicated to producing live and recorded computer music events that reflect the eclectic aesthetic goals of its members. Since its formation in 2002, EMC has been working on a variety of projects, notably its first two CDs, *Incandescence* and *Defiant* (both available from amazon.com), while keeping a steady focus on the production of interactive computer music concerts at various venues. The collective began with the ambition to create an environment that fosters collaborations with other artists, and this concert is no doubt a reflection of this goal. In parallel to their creative work, all EMCollective members collaborate in a variety of artistic and teaching engagements at key computer music centers around the United States.

The EMCollective is very pleased to be collaborating with the American Festival of Microtonal Music and its director, Johnny Reinhard. We applaud Mr. Reinhard's efforts to free concert music from the bounds of 12-tone-equal temperament. We hope this concert proves to be another step in that direction.

**Christopher Bailey** grew up in east-coast 'blue' America—Philadelphia and Massachusetts. He turned to music composition in his late 'teens, and to electroacoustic composition during his studies at the Eastman School of Music, and later at Columbia University. He caught the microtonal "bug" around 1999, first experimenting with it in *Ooogaah*, and since then nearly all of his works have deviated from 12-tone-equal-temperament in some fashion, ranging from the raw *musique concrète* works *Ow*, *My Head* and *Duude*, to the ornate 19-tone equal-temperament work *Sand*, his "neo-gothic" composition *Balladei* for piano and recorded electronics in *29/17-tet*, and *Arc of Infinity*, for guitar and electronics with adaptive Just Intonation. *Arc's* motley collection of "virtual instruments" are used in the vocal work (*Mergurs* . . .) heard tonight. For MP3s, software, and fun, informative and interactive stuff, see <http://music.columbia.edu/~chris> .

**Marcus Alessi Bittencourt** is a Brazilian composer and pianist based in the USA. He studied music with composers such as Willy Corrêa de Oliveira and Tristan Murail, and he is best described as an experimental musician, for he is a practitioner of a type of music which lives outside known traditions. Because of this, his music is marked by an extremely varied palette of musical sound materials and techniques, which reflect his intense investigation in the domains of form, polyrhythm and simultaneities, timbre, sound spatial perspective, microtonality, and orchestration of sound objects.

Prolific both as an instrumental and an electroacoustic composer, his list of compositions includes works for orchestra, chamber ensembles, choir, solo instruments (specially the piano), operas, as well as several electroacoustic works.

Marcus Bittencourt studied piano at the University of São Paulo in Brazil, and he holds Masters and Doctoral degrees in Music Composition from Columbia University, and he has taught Music at Columbia University and at Lehman College of CUNY. He currently teaches Composition, Theory, and Computer Music at the College of William and Mary in Virginia (USA).

Since 2000, he has run his own highly experimental studio for *Musique Concrète*, the *Zoológico*.

website: <http://mabitt.people.wm.edu>

**Sukato** is a vocalist, multi-instrumentalist, composer and improviser. Sukato studied at the Juilliard School, and later, at Eastman School of Music, and became interested in ethnomusicology and the possibilities of the voice. Sukato's latest album, self-titled *Sukato*, is available at CDBaby. website: <http://www.sukatomusic.com>

## PROGRAM NOTES

### Hot-Tempered Arpeggios

Timothy Polashek

This energetic electro-acoustic work features contrapuntal melodic lines constructed from pitch foundations ranging from 11-note equal temperament to 76-note equal temperament scales. These lines form intersecting and converging trajectories of both subtly and widely evolving computer-generated timbres.

### BlackandJill (2003)

Joseph Pehrson

BlackandJill was written for the excellent soprano Meredith Borden, who is interested in microtonality and in exploring new sound worlds. She premieres it this evening. It is written in the "Blackjack" scale, a 21 note scale (hence the name!) devised by musician-mathematicians Paul Erlich and Dave Keenan. Essentially, this scale has been constructed to approximate just intonation, or "unbeating" intervals with an error of only 2 or 3 cents (100 cents per semitone). The harmonic progressions I use, and harmony is quite featured in this piece, are not traditional "functional diatonic" harmony as taught in the conservatories but, instead, a "progression" of sounds achieved with reference to a visual aid: a lattice showing how all the non-beating pitches relate to one another. Using this lattice, I am able to create sonorous "lower integer" intervals and harmonic sounds (like the just *unbeating* major third and the just perfect fifth, etc.) and "progress" from one set of sounds to another without using traditional harmony. This lattice is shown on the back page of this program booklet. So, even though many of the sounds are somewhat familiar, although "purer" than usual, the process of going from one harmony to another is essentially new. To facilitate performance, the notation is the simple notation of 72-equal. One of the great advantages of the "Blackjack" scale is that it is a subset of 72-equal temperament. 72-equal is easy to learn since it uses our "normal" 12-equal system with only two alterations (other than quartertones): the sixth tone and the twelfth tone, throughout the entire range. To make things even easier, I include a "study track" with a synthesizer emulating the voice for practice. One advantage of writing for Meredith Borden is that she already knows the 72-equal notation, having studied with Joe Maneri at the New England Conservatory of music, where this system is currently being taught.

## **Shadow**

Douglas Geers

Shadow is an interactive electroacoustic work for violin and computer. In it, the violinist's performance is fed into the computer, which listens to the violin and both synthesizes music and transforms the violin's audio in response. The violinist also uses a sensor glove to send instructions to the computer, allowing her to adjust aspects of the computer's response at any moment, including a number of improvisatory sections in the piece. The work's harmonic scheme is based on a chromatic five limit just intonation scale with a fundamental tonic of G, and its harmonies consist of a set of six-note chords designed to express a range of perceptual qualities from quite consonant to quite dissonant. Many thanks to Maja Cerar, who inspired this piece, for whom it was composed, and who also provided extensive advice and feedback during its development. Tonight's performance is the world premiere of Shadow.

## **Ooogaah: Dungeony Specimen Spaceship**

Christopher Bailey

Ooogaah's microtonal scales, harmonies, and tunings are derived from a single instant of a popular song. Various other samples and references are peppered throughout the work. It was originally written in collaboration with dancer Anja Majewska, whose choreography inspired much of its gestural language. The work was written in 1999, and later revised/remixed in 2003. It appears on the Electric Music Collective's new album, *Defiant*.

## **Bathyscaphe**

Marcus Alessi Bittencourt

Ah! : the Depths, the Abyss.

"Pour vivre l'homme doit lutter.  
C'est vers la limite du réalisable  
que doivent tendre ses efforts."

*Auguste Piccard*  
(inventor of the *Bathyscaphe*)

Composed in 2005, Bathyscaphe is a concerto for ring-modulated piano and an automated unmanned acousmatic orchestra. The piece was created at the composer's *Zoológico* studio using mostly custom-made software by the composer himself, and its microtonal harmony is based on the principle of creating sidebands through adding and subtracting modulator frequencies to the main 12-et pitches.

**Joseph Pehrson**, composer-pianist, has written works for a wide variety of media including orchestra and chamber works. They have been performed at numerous venues including Merkin Hall, Weill Recital Hall, Symphony Space in New York and throughout the U.S., Eastern Europe and Russia. Since 1983 Mr. Pehrson has been co-director of the Composers Concordance in New York. He studied at the Eastman School of Music and the University of Michigan (DMA 1981). In June, 2004, Pehrson traveled to St. Petersburg, Russia to participate in Sergei Oskolkov's festival, "Sergei Oskolkov and Friends." Pehrson's microtonal solo bassoon piece using 8th tones called *One Small Step for Man* was performed there on June 8th, 2004. Additionally, two electronic pieces in "alternate" tunings, *Beepy*, in the Bohlen-Pierce scale and *Blacklight*, in the near-just-intonation "Blackjack" scale were heard and danced to by Linda Past-Pehrson on the same concert. June 6th, 2004, Pehrson's ensemble piece for mandolins, *Mandolni Majestici* was performed by the New York Mandolin Ensemble with Dan Barrett, conductor. October 25, 2004, the Archaeus Ensemble of 7 players conducted by Liviu Danceanu performed Pehrson's *Wild, Wild West* in Bucharest, Romania (first performance since 1999). November 19, 2004, Organist and composer Carson Cooman premiered Pehrson's *Organum* for solo organ at Christ & St. Stephen's church near Lincoln Center. This piece was performed again on Jan. 31, 2005 by Cooman at Houghton College, Houghton, NY.

**Timothy Polashek** is an accomplished pianist, lecturer and composer, writing for a variety of ensembles and media, including vocal, instrumental, and electro-acoustic music, text/sound compositions, and interactive performance systems. He is known for his unique arrangements. Dr. Polashek is an Assistant Professor of Music at Lehman College, and the Director of their state-of-the-art Electronic Music Center.

Tim's music has been performed in Hong Kong, Brazil, Moscow, and other European countries. He has recently debuted works at the Cincinnati Conservatory of Music and the SPARK New Music Festival. Some of his work has been performed by the renowned new music ensemble, Speculum Musicae. Tim was a panelist at the 2000 Society of Electro-Acoustic Music conference. His interactive text/sound installation *Tinkering With Sound* debuted at the NY Lincoln Center Summer Festival in 2000 and his electronic composition *Miniature Odyssey* was performed at the prestigious 2004 International Computer Music Festival. A member of the collaborative group, The Electric Music Collective, Tim's work can be found on their albums *Incandescence* and *Defiant*. His acoustic music has recently been featured at Merkin Hall in New York and his interactive composition *Concerto for Pianist and Disklavier* will receive its premiere performance at Symphony Space in New York on April 17. Dr. Polashek received his Doctor of Musical Arts in Composition from Columbia University, an MA in Electro-Acoustic Music from Dartmouth College, and BA in Music from Grinnell College.

**Meredith Borden**, cosmic blues coloratura, has been singing the notes between the notes for years. From vocal and operatic studies at the New England Conservatory of Music in Boston, Borden has gone on to sing professionally with a variety of groups in repertoire ranging from opera to rock and blues. In the process, Borden has mastered the ability to hear and reproduce vocally the subtle shadings of an infinite spectrum of pitches, and is a remarkably versatile performer. Borden has been pioneering her own virtuosic microtonal style for years, inspired by her early studies in microtonal music with performance master, Joe Maneri. Also an accomplished dancer and actress, Borden has performed in recitals, musicals, concerts and operas all over the world including a European tour of the American tribal rock musical HAIr. She has worked with such musical icons as Meredith Monk and Philip Glass in original music theatre works and is a regularly featured vocal soloist with the American Festival of Microtonal Music performing repertoire by composers such as Harry Partch and Julian Carrillo. Borden has been a frequent guest artist with the Queen's Chamber Band at Merkin Concert Hall featured in works such as Bach's *Cantata #51*, as well as neo-Baroque works. She has performed the role of Compassion in the opera *Waking In New York* by Elodie Lauten about Beat Generation poet Allen Ginsberg featuring his original writings and also sang the role of Persephone/Crow in Lauten's opera *Orfeo*. With NY Gilbert & Sullivan Players at Symphony Space, Borden just performed the role of Blush of Morning in a rare work by Sullivan called *The Rose of Persia*.

Borden is lead singer in the psychedelic blues band Willie McBlind led by her partner of 10 (plus!) years, Just Intonation guitarist and composer, Jon Catler, founder of FreeNote Records. Borden can be heard as lead vocalist on FreeNote CD's *Birdhouse* and *Evolution for Electric Guitar and Orchestra*. She can also be heard on Elodie Lauten's double CD release *Deus Ex Machina* and *Waking in New York*, both released on 4-Tay Records. For variety, Borden enjoys accompanying herself on Justly tuned autoharp and has sung with this instrument on many occasions in performance.

**Matthew Polashek** is a contemporary saxophonist living in the New York City area. His current work focuses on the development of his own real-time computer-based interactive multimedia performance system. He is pursuing a Master's degree in music at the City University of New York and holds a Bachelor of Arts in Jazz Studies from the University of Wisconsin at Green Bay, where he studied saxophone with John Salerno. He has extensive experience performing professionally on the saxophone, flute, and clarinet in a multitude of genres. He performs with his own group, the Matthew Polashek Exchange, and has performed and recorded with internationally renowned artists including David Liebman and Bryan Lynch. A gifted performer, composer, and arranger, Matthew has lectured on the topic of contemporary music performance practices and has performed contemporary music throughout the country. Matthew Polashek is also a project editor for Macmillan/McGraw-Hill.

## **Lunar Crescent**

Douglas Geers

Lunar Crescent is an experiment in microtonal interactive improvisation. The piece has no written score, but instead a piece of software written by the composer that leads the performer through the piece. As the piece proceeds, the computer instrument constantly listens to the acoustic performer and engages in a musical dialogue with him. However, the computer's behavior and sounds evolve, and these determine the overall form of the work. The live musician, meanwhile, creates his own part completely through improvisation and is essentially co-composer of the piece. Both what and how he plays at any particular moment can lead the computer to react in widely differing ways. The tonal scheme for the work is built upon a chromatic five limit just intonation scale in the key of A, which is filtered to create differing harmonic densities. Lunar Crescent was written for Matthew Polashek, and tonight's performance is its premiere. Much thanks to Matt for his dedication and creative insights during the creation of this piece.

## **Sonata**

Timothy Polashek

I find the vast array of tones and resonance produced by the piano to be an endless source of beauty and fascination, as well as a source of artistic inspiration. This electro-acoustic work imagines a piano partially freed from the limits of 12-ET that can perform glissandos of tremolos and dwells on the natural harmonic series by examining layers of stretched tones.

## **Mergurs Ehd Ffleweh bq Nsolst**

Christopher Bailey

While in Minneapolis recently, I gazed at the small sun. Even while shrouded in harsh Minnesotan cold, it still shone brightly, too brightly for me to look at it directly for long. It reminded me of a ritual I had heard about, sung by a dweller of the planet Mercury, finally crossing from the Dark Cold Side to the Bright Hot Side; viewing, for the first time, the massive, all-encompassing, all-powerful Sun, filling the sky with its impossible brightness. The ritual music is based around a 16-note (all different pitch-class) chord and derived scales tuned in Just Intonation.

## BIOGRAPHIES

### *Mergurs Ehd Ffleweh bq Nsolst*

bohde kii woon jjaa, nsolst. ah!  
morszehee bq manme wohpvahg ffohxwaw  
nohmorjj nmevah mergurs bq  
naa jjaaa shtoh, lloh jjaa shtoh

nme ngohah, vadir yuuvvlo anm  
anmahss krohahk  
blanmdanmg nohl jjaar anm

aahss mohlg jjuhmm  
ohnm jjaaa ahpanm yeshahp tchahkeh  
woe nwaav yeshahp ngohah  
wah jjahtahnmg wah soostahnmanmg wah burkroochkang bq  
woov jjaaa nwoo

translation:

### *View of the Sun From Mercury*

so great are you, oh sun!  
now, my time has come  
as proud citizen of Mercury  
to see you, to feel you

let me, in this last act  
immolate myself  
in your blinding light

devour my flesh  
take it deep within you  
let it become part  
of the all-creating, all-sustaining, all-destroying  
being that is you

**Maja Cerar** graduated with honors from the Conservatory Winterthur-Zurich, where she studied violin under Aida Stucki-Piraccini and took master classes with Zakhar Bron, Franco Gulli, and Igor Oistrakh. From 1995 to 2001 she polished her performance further, working with Dorothy DeLay in New York. Ms. Cerar frequently works with composers, has premiered numerous works written for her, and has been coached by Beat Furrer, Uros Krek, György Kurtág, and John Zorn. Since her debut in the Zurich Tonhalle in 1991 she has played as a soloist with orchestras in Europe, given recitals with distinguished artists on international tours (Paris, Rome, Washington, Chicago, New York) as well as at festivals in Europe (including the Davos "Young Artist in Concert," the Lockenhaus Festival, and the ISCM World Music Days), America (Aspen, Vermont, Santa Fe, the SEAMUS Festival - Denton and Phoenix - and Viva Vivaldi in Mexico City), and Asia (ICMC Festival, Singapore). Concurrent with her violin performance career, Maja Cerar earned her Master of Arts and Master of Philosophy degrees in Historical Musicology at Columbia University where she also taught Music Humanities and served on the editorial board of Current Musicology, and where she is currently completing her Ph.D. with a dissertation on Schubert's late string quartets.

**Doug Geers**, born and raised in Cincinnati, OH, is a composer who works extensively with technology in composition, performance, and multimedia collaborations. Praised for his "shimmering electronic textures" (Kyle Gann, Village Voice), Geers first began composing with computers shortly after his dad brought home an Atari 800 in 1983. He received a B.A. at Xavier University in English and Music, an M.M. at the Cincinnati College-Conservatory of Music, and a D.M.A. at Columbia University, where he studied composition and computer music with professors Brad Garton, Jonathan Kramer, Fred Lerdahl, and Tristan Murail. Currently, Geers is the Assistant Professor of Music Composition and Director of the Electronic Music Studios at the University of Minnesota, Minneapolis (USA). He is also the founder and director of the Spark Festival of Electronic Music and Art, held each February in Minneapolis; he is a co-founder and co-director of the Electric Music Collective, an internationally-based group of electroacoustic composer performers; and he is a member of the electroacoustic performance group Sønreel. (Please see [www.dgeers.com](http://www.dgeers.com) for more information.)