

p a t t i c u d d



E O S

## A\ 73:16

- 1) Duo for Cajon and Computer  
Cort Lippe 9:31
- 2) Bone Alphabet 9:39  
Brian Ferneyhough
- 3) Rosas 10:26  
Christian Wolff
- 4) Shadows of the Electric Moon  
Per Bloland 12:11
- 5) Ancient Caves 12:28  
Jeff Herriott
- 6) Snare Drum Alchemy 7:29  
Barry Moon
- 7) Duo for Vibraphone and  
Computer 11:29  
Cort Lippe

## B\ 75:10

- 1) Tattoo of a Gesture 13:23  
Margaret Schedel & Christopher  
Howard
- 2) Music for Hi-Hat and Computer  
Cort Lippe 12:33
- 3) Liquid 7:42  
Barry Moon
- 4) Newton's Rings 11:07  
Christopher Burns
- 5) Ti.Re-Ti.Ke-Dha 5:37  
James Dillon
- 6) Still Life with Vibraphone  
and Computer 15:54  
Eric Lyon
- 7) CUT 8:53  
Paul Elwood

## C\ 74:23

- 1) Music for Snare Drum and  
Computer 11:04  
Cort Lippe
- 2) Hekate 12:25  
Konstantinos Karathanasis
- 3) Eos 10:25  
Brett Wartchow
- 4) Pure Pleasure 5:01  
Scott Miller
- 5) Hummingbird Medicine 7:05  
Chapman Welch
- 6) Eternal West 9:24  
Paul Elwood
- 7) King of Denmark 7:10  
Morton Feldman
- 8) Red Shoes 11:47  
Pamela Madsen

# PATTI CUDD

PERCUSSION



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I HAVE LONG EXPLORED THE WORLD OF PERCUSSION THROUGH TOUCH: SCRAPING, SCRATCHING, TAPPING AND STRIKING, REVEALING MARVELOUS AND HIDDEN SOUND WORLDS IN SIMPLE OBJECTS. THIS COLLECTION SHOWS MY LIFELONG BRINGING WORKS TO BEAR OF THESE LIVED WITH GRADUATE ARE RECENT BUT ALL HAVE MUSICAL EXTRAORDINARY EXTENDING PHYSICAL PER-VIRTUAL COMPUTER OBJECTS AND PROCESSES, I AM EXCITED TO ENTER NEW SONIC AND MENTAL TERRITORIES IN THE COMPANY OF THESE MANY REMARKABLE COMPOSERS. – *Patti Cudd*



PASSION FOR SUCH NEW LIGHT. A NUMBER OF THESE PIECES HAVE COMMISSIONS, EXPANDED MY HORIZONS IN EX-TRAORDINARY WAYS. NOW BY THE WORLD OF PERCUSSION WITH

THIS ALBUM IS DEDICATED TO MY MOTHER DOROTHY CUDD, MY HUSBAND NELSON ZAMORA, MY DAUGHTER TERE CUDD-ZAMORA AND TO THE LOVING MEMORY OF MY FATHER, TOM CUDD. THIS WOULD NOT HAVE BEEN POSSIBLE WITHOUT YOUR LOVE AND SUPPORT!

SPECIAL THANK YOU TO THE MANY AMAZING PEOPLE IN MY LIFE, WHO HAVE BEEN SO SUPPORTIVE THROUGHOUT THE YEARS: MY FAMILY, DOROTHY, TOM, NELSON, TERE, PHIL, SABRINA AND WADE, MY INSPIRATIONAL TEACHERS CARL MEINCKE, AND CONRAD DEJONG, MY GOOD FRIEND CORT LIPPE, A SPECIAL THANK YOU TO MARY ELLEN CHILDS, PHILIP BLACKBURN, PETE FURNISS, THE FOR YOUR HARD WORK AND GENEROSITY, MY MENTORS SCHICK, MIKE ROY, LYLLOFF AND JOE

PATTI CUDD IS A MEMBER OF AN ARTIST RESIDENCY PROGRAM AT THE MINNESOTA STATE ARTS BOARD. THIS RESIDENCY IS MADE POSSIBLE BY THE VOTERS OF MINNESOTA THROUGH A GRANT FROM THE MINNESOTA STATE ARTS BOARD, THANKS TO A LEGISLATIVE APPROPRIATION BY THE MINNESOTA STATE LEGISLATURE; AND BY A GRANT FROM THE NATIONAL ENDOWMENT FOR THE ARTS.

INNOCENT IS SUPPORTED BY AN ENDOWMENT FROM THE MCKNIGHT FOUNDATION.

PHILIP BLACKBURN, DIRECTOR, DESIGN  
CHRIS CAMPBELL, OPERATIONS DIRECTOR  
STEVE MCPHERSON, PUBLICIST

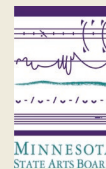
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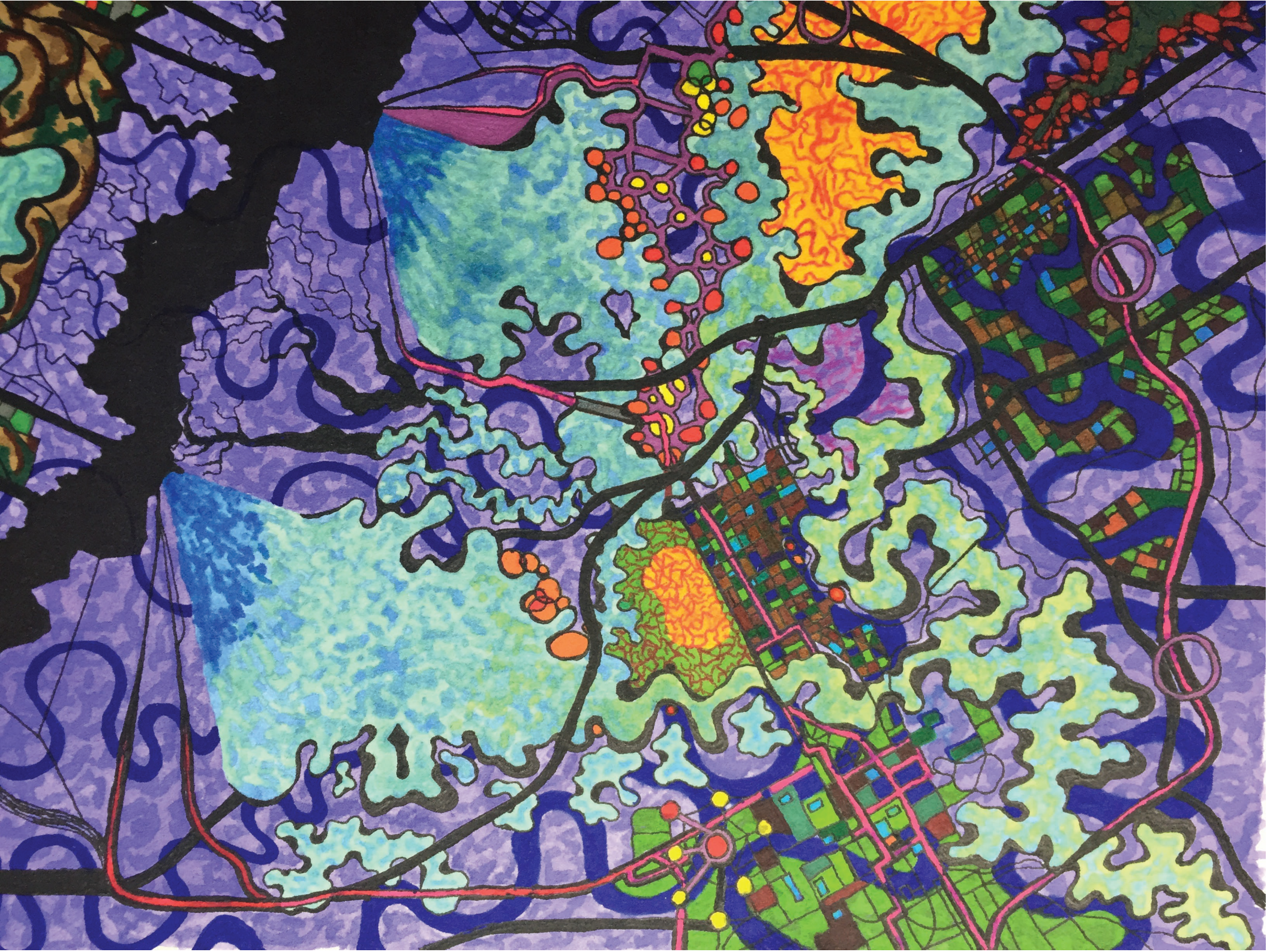


CHRIS JACOBS, PHILIP TER SULLIVAN AND PETE AMAZING COMPOSERS WORK AND GENEROSITY, JAN WILLIAMS, STEVE GERT MORTENSEN, BENT HOLMQUIST.

FISCAL YEAR 2016 RECIPIENT OF AN INITIATIVE GRANT FROM THE STATE ARTS BOARD. THIS WAS MADE POSSIBLE BY THE VOTERS THROUGH A GRANT FROM THE MINNESOTA STATE ARTS BOARD, A LEGISLATIVE APPROPRIATION BY THE MINNESOTA STATE LEGISLATURE; AND BY A GRANT FROM THE NATIONAL ENDOWMENT FOR THE ARTS.

SUPPORTED BY AN ENDOWMENT FROM THE MCKNIGHT FOUNDATION.





1) **Duo for Cajon and Computer**  
(2011, rec.2013) **Cort Lippe**

Executive Producer: Cort Lippe

Producer: Chris Jacobs

Engineering and mastering: Chris Jacobs  
and Cort Lippe

Session Producer: Chris Jacobs

Recorded at University of Buffalo, Buffalo,  
New York

2) **Bone Alphabet**  
(1992, rec.1998) **Brian Ferneyhough**

Executive Producer: Chris Mercer

Producer: Chris Mercer and Patti Cudd

Engineering and mastering: Chris Mercer  
and Chris Jacobs

Recorded at Erickson Hall Recording Studio,  
University of California, San Diego

3) **Rosas**  
**in five movements**  
(1990, rec.1996) **Christian Wolff**

Executive Producer: Josef Kucera

Producer: Josef Kucera, Patti Cudd and San-  
dra Brown

Engineering and mastering: Joseph Kucera  
and Chris Jacobs

Recorded at Warren Recording Studios, Uni-  
versity of California, San Diego  
Sandra Brown, Piano

4) **Shadows of the Electric Moon**  
(2013, rec.2016) **Per Bloland**

Executive Producer: Per Bloland

Producer: Per Bloland

Engineering and mastering: Chris Jacobs  
and Per Bloland

Session Producers: Per Bloland

Recorded at Miami University Electronic  
Music Studios

5) **Ancient Caves**  
(2011, rec.2013) **Jeff Herriott**

Executive Producer: Jeff Herriott and Patti  
Cudd

Producer: Jeff Herriott and Patti Cudd

Engineering and mastering: Jeff Herriott  
and Chris Jacobs

Session Producers: Jeff Herriott

Recorded at University of Buffalo, Buffalo,  
New York

6) **Snare Drum Alchemy**  
(2012, rec.2013) **Barry Moon**

Producer: Barry Moon

Engineering and mastering: Barry Moon and  
Chris Jacobs

Session Producers: Barry Moon

Recorded at Home studio, Glendale, Arizona

7) **Duo for Vibraphone and Computer**  
(2015, rec.2016) **Cort Lippe**

Executive Producer: Cort Lippe

Producer: Chris Jacobs

Engineering and mastering: Chris Jacobs  
and Cort Lippe

Session Producer: Chris Jacobs

Recorded at University of Buffalo, Buffalo,  
New York



- 1) **Tattoo of a Gesture**
  1. Underhues
  2. Tangle and Thought
  3. Geometries of Shadow
  4. To red, to music, to chaos  
(2013, rec.2016) **Margaret Schedel & Christopher Howard**

Executive Producer: Margaret Schedel

Producer: Imoni Cole-Palmer

Engineering and mastering: Imoni Cole-Palmer and Chris Jacobs

Session Producers: Margaret Schedel, Imoni Cole-Palmer, Christopher Howard  
Recorded at Stony Brook University, Stony Brook, New York

- 2) **Music for Hi-Hat and Computer**  
(1998, rec.2013) **Cort Lippe**

Executive Producer: Cort Lippe

Producer: Chris Jacobs

Engineering and mastering: Chris Jacobs and Cort Lippe

Session Producer: Chris Jacobs

Recorded at University of Buffalo, Buffalo, New York

- 3) **Liquid**  
(2016, rec.2016) **Barry Moon**

Producer: Barry Moon

Engineering and mastering: Barry Moon and Chris Jacobs

Session Producer: Matthew Zimmerman

Recorded at Wild Sound Recording Studio, Minneapolis, Minnesota

- 4) **Newton's Rings**
  1. Reflection
  2. Dark Bands
  3. Chromatic Dispersion

4. Double Refraction
5. Cloud Iridescence  
(2012, rec.2013) **Christopher Burns**

Producer: Christopher Burns

Engineering and mastering: Christopher Burns and Chris Jacobs

Session Producer: Christopher Burns

Recorded at University of Wisconsin-Milwaukee

- 5) **Ti.Re-Ti.Ke-Dha**  
(1979, rec.1998) **James Dillon**

Executive Producer: Chris Mercer

Producers: Chris Mercer and Patti Cudd

Engineering and mastering: Chris Mercer and Chris Jacobs

Recorded at Erickson Hall Recording Studio, University of California, San Diego

- 6) **Still Life with Vibraphone and Computer**  
(2011, rec.2012) **Eric Lyon**

Executive Producer: Eric Lyon

Producer: Eric Lyon

Engineering and mastering: Chris Corrigan

Session Producer: Chris Corrigan  
Recorded at Sonic Lab, SARC. Belfast, United Kingdom.

- 7) **CUT**  
(2009/2013, rec.2016) **Paul Elwood**

Executive Producer: Chris Jacobs

Producers: Chris Jacobs and Patti Cudd

Engineering and mastering: Chris Jacobs

Session Producer: Chris Jacobs

Recorded at University of Buffalo, Buffalo, New York



1) **Music for Snare Drum and Computer**  
(2007, rec.2010) **Cort Lippe**

Executive Producer: Cort Lippe

Producer: Chris Jacobs

Engineering and mastering: Chris Jacobs  
and Cort Lippe

Session Producers: Scott Miller and Patti Cudd

Recorded at Wild Sound Recording Studio,  
Minneapolis, Minnesota

2) **Hekate (2013, rec.2016)**  
**Konstantinos Karathanasis**

Executive Producer: Konstantinos  
Karathanasis

Producer: Konstantinos Karathanasis

Engineering and Mastering: Konstantinos  
Karathanasis and Chris Jacobs

Session Producers: Konstantinos  
Karathanasis and Ioannis Andriotis

Recorded at University of Oklahoma, School  
of Music, Computer Music Studios

3) **Eos**  
(2012, rec.2016) **Brett Wartchow**

Producer: Brett Wartchow

Engineering and mastering: Chris Jacobs

Session Producer: Matthew Zimmerman

Recorded at Wild Sound Recording Studio,  
Minneapolis, Minnesota

4) **Pure Pleasure**  
(2008, rec.2010) **Scott Miller**

Executive Producer: Chris Jacobs

Producer: Scott Miller

Engineering and mastering: Steve Kaul and  
Chris Jacobs

Session Producers: Scott Miller and Patti Cudd

Recorded at Minneapolis, Minnesota

5) **Hummingbird Medicine**  
(2012, rec.2013) **Chapman Welch**

Executive Producer: Chapman Welch

Producer: Chapman Welch

Engineering and mastering: Francis  
Schmidt, Chapman Welch and Chris Jacobs

Session Producer: Chapman Welch

Recorded at Hirsch Orchestra Rehearsal  
Hall, Rice University, Houston, Texas.

6) **Eternal West**  
(1995, rec.1996) **Paul Elwood**

Executive Producer: Chris Mercer

Producer: Chris Mercer and Patti Cudd

Engineering and mastering: Chris Mercer  
and Chris Jacobs

Recorded at Erickson Hall Recording Studio,  
University of California, San Diego

7) **King of Denmark**  
(1964, rec.1997) **Morton Feldman**

Executive Producer: Brett Reed

Producer: Brett Reed and Patti Cudd

Engineering and mastering: Brett Reed and  
Chris Jacobs

Recorded at Erickson Hall Recording Studio,  
University of California, San Diego

8) **Red Shoes**  
(1996, rec.1997) **Pamela Madsen**

Executive Producer: Brett Reed

Engineering and mastering: Brett Reed and  
Chris Jacobs

Session Producer: Pamela Madsen

Recorded at Erickson Hall Recording Studio,  
University of California, San Diego





**A1: Duo for Cajon and Computer (Cort Lippe)** was commissioned by Patti Cudd for a tour of Thailand and Korea in 2011. The electronic part was created at the Hiller Music Studios of the University at Buffalo, using the software Max/MSP. Technically, the computer tracks parameters of the cajon performance using Miller Puckette's *bonk~* object, which does an analysis of the incoming cajon signal and gives out information as to when the cajon is struck, how loud it is struck, timbre of each strike, and details about relative loudness in 11 independent frequency bands. This information is used to continuously influence and manipulate the computer sound output by directly affecting digital synthesis and compositional algorithms in real-time. The DSP includes resonant filter banks, formant filters, and comb filters, along with delay/feedback, spatialization, frequency shifting, frequency modulation synthesis, and sample playback. This piece is dedicated to Max Matthews, who passed away April 21, 2011.

*music.buffalo.edu/faculty/lippe*

**A2: Bone Alphabet (Brian Ferneyhough)** is generally considered one of the most difficult works in the solo percussion repertoire, *Bone Alphabet* came about as the result of a request by Steven Schick for a solo work for a group of instruments small enough to be transportable as part of the performer's

personal luggage when traveling by air. The precise instruments to be utilized are left unspecified, other than by requiring each of the seven sound sources selected to be capable of supporting a wide range of dynamics and of having closely similar attack and decay characteristics to the other instruments. An additional constraint was that no two adjacent instruments making up the gamut of possibilities were to be constructed of the same material (so that, for instance, a Chinese gong could not be located next to a cowbell).

*music.stanford.edu/people/brian-ferneyhough*

**A3: Rosas (Christian Wolff)** was commissioned by the city of Witten, Germany, for the Wittener Tage für Neue Kammermusik 1990 for the pianist Marianne Schroeder and the percussionist Robyn Schulkowsky. Throughout the score the percussionist is asked to create their own interpretation of the staff, leaving many elements such as tempo, dynamics, percussion instruments free and open to the performer.

This piece is a tribute to two Rosas, Rosa Luxemburg, and Mrs. Rosa Parks. The Rosas never seem to exhort, but to persuade, and the main thing being persuaded is not that things must proceed in such-and-such a way, but a more powerful message—that things could be different than they are, and

that it is up to both musicians and listeners to create the conditions for change. "The way the music is made and presented becomes a metaphor for a social situation,"

– Christian Wolff Edited from *Christian Wolff: An Aesthetic of Suggestion* by George E. Lewis

[eamusic.dartmouth.edu/~wolff/](http://eamusic.dartmouth.edu/~wolff/)

**A4: Shadows of the Electric Moon for solo snare drum and electromagnet (Per Bloland).** In *Shadows...*, the timbral palette of the snare drum is altered in a number of ways. For most of the piece the drum is upside down, with the snare exposed. Various cymbals are brought into contact both with the drumhead and this exposed snare. In addition a sound exciter rests on the snare for the much of the piece. This sound exciter receives an audio signal from a computer, and attempts to reproduce that signal by vibrating the snare at the appropriate frequencies. The success of this endeavor is, of course, inherently limited.

The content of the piece is derived from permutations of an ever-evolving set of highly constrained material types. The sound types emphasized tend to be abrupt and mechanical, often involving some form of continuing yet broken evolution. As an example, a single material type might go from very slow (or low) to very fast (or high) over a minute, but that minute is broken

into chunks of only a second or two and interspersed with chunks of another material type evolving in a different direction. This piece is dedicated to Patti Cudd.

[perbloland.com](http://perbloland.com)

**A5: Ancient Caves (Jeff Herriott)** was inspired by the vast space and sound of the bass drum. The cavernous drum, a marvelously resonant chamber, renders possible all sorts of subtle sounds in the hands of a deft performer. Rather than striking the drum, the performer is asked to use her hands to rub, scrape, and tap the drum surface, in ritualistic fashion, paying attention to quiet details and variations in sound. Both the performer's part and the electronics are somewhat improvisational, resulting in surprising synchronicities and occasional silences. This piece was commissioned by Patti Cudd.

[jeffherriott.com](http://jeffherriott.com)

**A6: Snare Alchemy for improvised snare performance and computer (Barry Moon).** The form of the electronic part is fixed, allowing the improviser to learn how the computer responds in different sections. I first used this approach in 2000 in a piece for my own performance for electric guitar and computer. Twelve computer processes are employed, referencing the chemical operations assigned to the signs of the Zo

diac in 18th Century texts. These processes act in combination, often transforming the sound of the snare into something completely foreign. This piece was commissioned by Patti Cudd.

*barrymoon.com*

**A7: Duo for Vibraphone and Computer (Cort Lippe)** was adapted from an earlier composition entitled *Duo for Tenor Steel Pan and Computer*, 2011. The vibraphone version was created for Patti Cudd and premiered by her at NYU's Interactive Arts Performance Series, February, 2015. The computer part was created at the Hiller Computer Music Studios of the University at Buffalo, New York, using the software Max/MSP. The digital synthesis algorithms focus on various kinds of analysis/resynthesis, along with delay/feedback, spatialization, frequency shifting, frequency modulation synthesis, harmonization, and sample playback. Technically, the computer tracks parameters of the vibraphone performance using Miller Puckette's *sigmund~* object, which does an analysis of the incoming vibraphone signal and gives out information as to when the vibraphone is struck, how loud it is struck, and the pitch and timbre of each strike (including details about relative loudness across the frequency range in 40 independent frequency bands). All this information, from larger scale rhythmic

and phrase tracking of pitches and attacks, down to micro-level frequency band information, is used to continuously influence and manipulate the computer sound output by directly affecting digital synthesis and compositional algorithms in real-time, giving the performer an active role in shaping all of the computer output.

**B1: Tattoo of a Gesture (Margaret Schedel & Christopher Howard)**. In 2013, percussionist Patti Cudd asked me to write her a piece which could travel well and that used her twenty-inch Bendir as a focal point. This constraint dictated the orchestration—a small bongo rounds out the membranophones while elephant bells, singing bowls and cymbals create a metallic orchestra. A number of striking and muting implements allow the performer to generate a wide variety of sounds and textures from this small set of instruments that are then processed and augmented by the electronics. The piece has nine movements, but there are several different shorter paths through the material. Each of the movements uses the same processing techniques in the same order, although these techniques can be compressed to 1 ½ minutes or develop over 6 ½ minutes. These fixed positions define the form, but the live percussionist projects through these potentialities in very different ways. The first step of the

processing acts almost like a sieve—only allowing certain sets of frequencies at specific times or specific volumes to be analyzed and manipulated by the computer. In this way, each movement shows a different angle to the piece; the whole is only suggested, heard behind a tattered veil.

*schedel.net*

**B2: Music for Hi-Hat and Computer (Cort Lippe)** was commissioned by the American percussionist J. Landy Cosgrove, and premiered in Denmark in March of 1998. The electronic part was created at the Hiller Computer Music Studios of the University at Buffalo, New York using the software Max-ISPW, which was developed by Miller Puckette, whose technical support helped make this piece possible. The computer tracks parameters of the hi-hat, such as pitch, amplitude, continuous pitch change, rests, articulation, timbre, tempi, etc., and uses this information to continuously control and influence all the electronic sounds via compositional and digital synthesis algorithms. Time-stretching, granular sampling, FFT-based cross-synthesis, and analysis/resynthesis using an oscillator bank, as well as more standard signal processing such as harmonizing, phasing, spatialization, etc., are employed. The intent is to allow the performer to influence the computer output based on aspects of the musical

expressivity of his/her interpretation of the score.

**B3: Liquid (Barry Moon)** is a study in mutable form. Written over a winter break on the road, the vibraphone part is composed with a conscious effort to avoid repetition. While that intention failed, the rearrangement of fragmented music for me carries a sense of desperation and yearning (homesickness?). Max/MSP processing attempts to help create a sense of flow, translating music as a soundtrack translates film. Cuts are temporally justified by ongoing transitions in sound transformation. While most of the processes are quite standard, their mixing often produces interesting results.

*barrymoon.com*

**B4: Newton's Rings (Christopher Burns)** is an exploration of musical interference patterns. In each of the five movements, a handful of simple processes are used to construct the percussion material. While these developmental rules are straightforward (for instance, with each new phrase adding one note, accelerating one rhythmic group, or lengthening one silence), the interactions between the rules rapidly become complex, leading to unpredictable changes in the music. Another level of interference is produced by the electronics, which are generated entirely from the sounds of the soloist's performance.

Echoes, reversals, filtering and pitch shifting are all used to transform the percussion sounds, and to concentrate our attention on different aspects of the percussion material. The electronic distortions also evolve over the course of each movement, creating a parallel trajectory to the percussionist's journeys. This piece was commissioned by Patti Cudd. [sfsound.org/~cburns/](http://sfsound.org/~cburns/)

**B5: Ti-Re Ti- Ke Dha (James Dillon).** Demonstrating Dillon's "New Complexity" compositional style, every component of *Ti-Re-Ti-Ke-Dha* is excessive. There is an elaborate utilization of spatial notation and an abundance of information inserted into the score. Dillon aggressively exploits the sound palette through an extended instrumentation, implements, and techniques. As a result, the work challenges the performer through multiple layers of melodic, rhythmic, dynamic, and textural gestures.

–Edited from Kevin Arthur Nichols, "Important works for drum set as a multiple percussion instrument"

[edition-peters.com/composer/Dillon-James](http://edition-peters.com/composer/Dillon-James)

**B6: Still Life with Vibraphone and Computer (Eric Lyon)** is an articulated noise composition in three interspersed movements. Each movement features a pure structure, which is gently perturbed by noise processes. The first movement employs rapid four-note patterns that are destabilized

through rhythmic displacement, and the introduction of foreign elements. The second movement consists of perfect fourths that are occasionally displaced by randomly selected alternative intervals. The third movement consists of slow four-note chords subjected to random pattern enhancement through live digital signal processing. This piece was commissioned by Patti Cudd.

[performingarts.vt.edu/faculty-staff/view/eric-lyon](http://performingarts.vt.edu/faculty-staff/view/eric-lyon)

**B7: CUT (Paul Elwood).** When I was an undergraduate I took a general astronomy class. Every Wednesday night, weather permitting, we participated in lab exercises led by a graduate student at a site in the country where we would look through telescopes, make observations, do simple calculations on star movement, etc. There was a cinderblock hut on the premises and the grad student would often tune the short wave radio in the hut to a station in Colorado that broadcast the Coordinated Universal Time (CUT) tone. I still think of these repetitive tones and clicks, punctuated by a calm male voice announcing each minute, as a great soundtrack for looking at the stars. I always thought that I'd do something with this experience so, finally, after thirty years or so I wrote *CUT* for solo percussion with recordings taken from the CUT radio station in Fort Collins, Colorado. The time tone and voice are the basis for

this composition. While most announcements on the playback are actually each a minute apart, there are a couple of instances where time is shortened between segments and in one instance a time out of sequence is given. Earlier versions had all the time announcements out of sequence, but my friend, Hervé Nahon, of Marseille, France, suggested that I place the announcements in sequence to match the circadian expectation of our consciousness and I thought that this was a good suggestion. *CUT* is dedicated to Patti Cudd.

*paul-elwood.com*

**C1: Music for Snare Drum and Computer, (Cort Lippe)** was commissioned by the percussionist Pedro Carneiro and premiered by him at the Music Viva Festival in Porto, Portugal. The electronic part was created at the Hiller Computer Music Studios of the University at Buffalo, New York, using the software Max/MSP. Technically, the computer tracks parameters of the snare drum performance and uses this information to continuously influence and manipulate the computer sound output by directly affecting digital synthesis and compositional algorithms in real-time. Thus, while interacting with the computer system, the performer shapes all of the computer output. The digital synthesis algorithms focus on frequency domain spectral processing of

individual FFT channels, and include filtering, delay/feedback, spatialization, timbral snapshots, cross-synthesis, noise reduction/enhancement, and component reordering. This piece is dedicated to Convolution Brother #0 and Convolution Brother #2 (aka Miller Puckette and Zack Settel).

**C2: Hekate (Konstantinos Karathanasis)** is a Greek goddess associated with crossroads, gates, liminal places in space and time. The moon, fire, herbs and poisonous plants, magic, witchcraft, angels and ghosts are her dominion. She rules over earth, sea and sky, and accompanies the souls of the deceased to Hades, holding torches in her hands. In late antiquity she is known as Savior who embodies the Cosmic Soul. The piece is written for Bendir, a special type of frame drum with snares, finger cymbal, and ankle bells. The sound of the Bendir creates powerful images associated with shamanism, mysticism, rituals, ecstasy, healing, and femininity. The composition showcases nocturnal and other field recordings captured by the composer in Greece. The computer tracks the attack and the dynamics of the instruments and reacts by using various live processing techniques, which include multiple delays, phase vocoding, live sampling, frequency shifting, and harmonization among others. Hekate is dedicated to Patti Cudd.

[ou.edu/finearts/music/faculty-staff/konstantinos-karathanasis.html](http://ou.edu/finearts/music/faculty-staff/konstantinos-karathanasis.html)

**C3: Eos (Brett Wartchow).** In Greek mythology, Eos, goddess of the dawn, rose each morning from her home in the Oceanus, the great river encircling the world. The conceptual image of these two intersecting cycles—an endlessly flowing river and the subtle drama of dawning light—inspired *Eos for cajón and fixed stereo electroacoustics*. Commissioned by Patti Cudd in 2013, the composition is a journey of rhythmic transformation that explores a process of motivic distention through the textural interweaving of hand percussion, oscillators and sampled audio. The piece opens with simple gestures in the cajón that gradually develop into lyric phrases. Similarly, ostinati in the electronics subtly morph into complex contrapuntal braids. This interplay ebbs and flows, eventually accumulating in a mass of florid density, then dissipates like a cloud in the atmosphere. In this way, Eos reflects the sun's dramatic transition across the sky and the resultant nuances of the Earth's oceans and atmosphere.

[brettwartchow.tumblr.com](http://brettwartchow.tumblr.com)

**C4: Pure Pleasure (Scott Miller).** When I was completing the work and in rehearsals with Patti Cudd, Patti asked me what is the piece about. I hadn't really considered it until

then and gave her my first reaction, that it is about the pure pleasure of performing the rhythms in the piece.

[scottlmiller.net](http://scottlmiller.net)

**C5: Hummingbird Medicine (Chapman Welch)** presents a series of musical materials with varying degrees of consonance and dissonance. Each of the materials is developed and then frozen in place and allowed to hover. The computer provides harmonic support and uses pitch and amplitude data from the live vibraphone to control the processing of live and synthesized input. The piece was written for and is dedicated to Patti Cudd.

[chapmanwelch.com](http://chapmanwelch.com)

**C6: The Eternal West (Paul Elwood)** was written for and dedicated to Patti Cudd. Expressively, the piece is informed by notions of the mythic American West emblematic of the questing spirit in both interior and exterior movement. A few lines from Thomas Pynchon (b. 1937) helped serve as a starting point for the piece. In his novel "Mason & Dixon" he describes the two explorers traveling far to the West "in perfect enfilade" until they are in sight of the Rocky Mountains. And this description resonated with a line from Arthur Rimbaud (1854-1891). In "Cities (II)" from his collection titled "Illuminations" he writes: "...the

suburb loses itself strangely in the countryside, the 'Country' that fills the eternal West with forests and endless plantations where savage gentlemen seek distraction beneath the light they made." (Translated by Wyatt Mason, "Rimbaud Complete," the Modern Library, 2003.) As the explorers to the West pushed boundaries, the percussionist is asked to push boundaries of possibility in the number of things she is asked to do simultaneously through the piece.

C7: In many ways, **King of Denmark (Morton Feldman)** is an anti-percussion piece. It is to be played very softly using only the hand and fingers - no sticks or mallets. Its notation on a graph indicates how many sounds are to be played per beat and whether they are to be in high, medium, or low registers. Even though a tempo runs throughout, no rhythmic coherence emerges. Sounds simply float out, detached and weightless. One instrument has no more sonic gravity than another. These illusions come from Feldman's love of the pulsating but rhythmically directionless canvases of Mark Rothko and other American Abstract Expressionists. Directionlessness is key here. The King of Denmark is music that refuses to dictate the way it should be perceived. It simply floats in timeless ether to be looked at from any angle, any proximity, any point of view.

- Note written to accompany the concert

series "Three Nights of Percussion" given in New York in 1998 by Steven Schick [universaledition.com/Morton-Feldman/composers-and-works/composer/220](http://universaledition.com/Morton-Feldman/composers-and-works/composer/220)

C8: **The Red Shoes (Pamela Madsen)** commissioned by Patti Cudd, is from The Sexton Cycle, an hour-long cycle of works for soloists, ensembles, and electronics based on the poetry of Pulitzer Prize winning confessional poet Anne Sexton (1928-1974). She was a mad housewife in the fifties who, after giving birth to her child, was dissatisfied with her life. She wrote about the social confusions of growing up in the female body and of living as a woman in postwar American Society. This work conveys the inner duality and conflict of the self with society, as expressed in the poem through the cultural construct as well as through the struggle of the individual performer over the score or the composer. In the course of the work many different struggles of self vs. environment take place which are articulated by how the percussionist speaks in relationship to the multiple layers of percussion on which she is performing. The percussion set-up was constructed out of simple "found" items that were repurposed for use in the work.

[pamelamadsen.com](http://pamelamadsen.com)