ICMC 2006

MULTIDIMENSIONALITY

THE INTERNATIONAL COMPUTER MUSIC CONFERENCE
AN ICMC-SEAMUS COLLABORATION

NOVEMBER 6-11, 2006
TULANE UNIVERSITY
NEW ORLEANS, LA USA

www.icmc2006.org

ICMC 2006

MULTIDIMENSIONALITY

CONFERENCE

PROGRAM

NOVEMBER 6-11, 2006

TULANE UNIVERSITY
NEW ORLEANS, LOUISIANA
USA

TABLE OF CONTENTS

Conference Details

Conference Chair
Tae Hong Park

Conference Assistants
Kyoung Hyun Ahn, James Cook, Don Elbers, Juraj Kojs, Joo Won Park, Kevin Parks, Conner Richardson, Troy Rogers, Dartmouth EA Graduate Students, James Hester, Chris Hilton, Parag Mital, Travis Scharr, Zhiye Li

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Zhiye Li, Don Elbers

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Tae Hong Park, Paul J. Botelho

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Javier Leon

ICMC Poster Design
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Web Development
Hye Won Kim, Tae Hong Park

Normally when tourists or first-time residents come to New Orleans, they have a difficult time understanding the city. It looks like no other place in the United States. The first puzzling impression usually comes from the appearance of the French Quarter near many of the city's hotels. It is more than just a few blocks of townhouses and cottages standing side-by-side, up against the sidewalk. The size of the district startles even those well traveled in the rest of the nation. Few visitors, moreover, are accustomed to such a mélange of people moving at all hours of the day and night in the very center of the city. They quickly learn that bars have no closing hour, that the food is spicy, and that the music is pulsating almost everywhere. And they may also take note that the locals talk funny but seldom have southern accents.

Even a prolonged stay brings no easy recognition or familiarity. Someone from a northern city might see something familiar like a Saint Patrick's Day parade, Italian fresh produce dealers, or some century-old Lutheran, Greek Orthodox and Jewish congregations. They would also recognize soul food restaurants, African American store-front churches, and the lilt of Spanish spoken in the streets. A southern visitor would see familiar colonnaded houses, catch a whiff of jasmine blossoms, and even find cornbread on some menus. But still most residents of the United States will still be puzzled by what they observe in the city — their usual explanation is that New Orleans is a foreign place, more a European than an American city.

But it is an American city — just a very different place with a very peculiar history. New Orleans is a place where Africans, both slave and free, and American Indians shared their cultures and intermingled with European settlers. Evidence of this past still survives in the city's oldest quarters. A ride on a St. Charles streetcar will take a visitor away from the exotic French Quarter, initially through a business district more like that of the rest of America, and then through neighborhoods such as the lower and upper Garden Districts that look a little like Charleston or Savannah. Further still, through the University district, neighborhoods emerge filled with Victorian homes once common in American cities.

Because the highest ground in this largely below sea level city runs along its natural levees, the streetcar takes its riders on a passage through historical eras and their evolving architectural tastes. Indeed, one of the city's nicknames, the “Crescent City,” came from the pattern of its growth along the river, which made a large bend through the delta from the original French settlement out to the once separate town of Carrollton. The streetcar, the oldest surviving trolley in the US, was constructed to connect those two 19th century settlements. Similarly, a bus ride along Magazine Street would show the diversity of ethnic shops, just as a ride up Esplanade Avenue would reveal the tastes and habits of

the city's Creole population. And, of course, a stroll through any of the unique cemeteries, called "the Cities of the Dead," vividly show the multiplicity of names, birthplaces and languages of the various peoples who made up the population of the Crescent City.

Finally, New Orleans' peculiar ways need more explanation than a variant colonial past and a wildly diverse population. New Orleans has remained an American province with a variant way of life. What is most intriguing about the city is its ability to fashion a public culture that transcends all of its varied peoples. More than a mosaic of identities, they share a new cultural identity. Neither race nor nationality excludes any group from this common ground. What the city's denizens celebrate is less the Old World cultures of their ancestors and more the new way of life that evolved in New Orleans. The food, the festival, the music are shared pleasures, because somehow a novel ethnicity, born of the New World, has emerged in New Orleans. Creole cuisine, jazz and other local musics, Mardi Gras — all these famous attributes of the city give New Orleans a powerful sense of identity.

It is a live culture. If visitors make an effort, they find a vibrant urban folk culture still producing new forms and practitioners. They find the neighborhood restaurants opened by bold creative chefs, the autumnal brass band parades in central city neighborhoods, the young lions of jazz now dominating the local scene as well as the world beyond, and the recently created Jazz & Heritage Festival. All these recent developments testify to the remarkable power of the city's culture to absorb new influences and fashion delights that continue to amaze not only much of the world, but also the inhabitants of New Orleans themselves.

Letter from Scott Cowen President of Tulane University

Welcome to the International Computer Music Conference. Tulane University is pleased to be your host for this important event. I hope that you enjoy the sessions, concerts, and discussions that you will participate in this week.

Thank you for your collaboration with Habitat for Humanity and your assistance with the building of the Musician's Village project. Celebrating and preserving music is invaluable to the City of New Orleans, particularly in dealing with the devastating effects of Hurricane Katrina. I commend you for participating in the greatest rebuilding effort in American history.

Best wishes for a pleasant and productive stay in New Orleans.

Regards,
Scott S. Cowen
President, Tulane University

Tulane University, founded in 1834, is one of the foremost independent national research universities in the United States. Its admission criteria place it among the most highly selective universities in the nation. Tulane's schools and colleges offer undergraduate, graduate and professional degrees in the liberal arts and sciences, architecture, business, engineering, law, social work, medicine, and public health and tropical medicine.

The university is a member of the prestigious Association of American Universities, a select group of the 62 leading research universities in the United States and Canada with "pre-eminent programs of graduate and professional education and scholarly research." Tulane also is ranked by the Carnegie Foundation for the Advancement of Teaching as a university with "very high research activity." Of more than 4,300 higher educational institutions rated by the foundation, Tulane remains in a prestigious category that includes only 2 percent of universities nationwide.

Located in New Orleans since its founding, Tulane traces its origins to the Medical College of Louisiana, the Deep South's second medical school, which was founded in 1834. By 1847, the Medical College was part of the newly established public institution, the University of Louisiana. Tulane began as a private university in 1884 when the public University of Louisiana was reorganized and named in honor of benefactor Paul Tulane, a wealthy merchant who bequeathed more than $1 million to endow a university "for the promotion and encouragement of intellectual, moral and industrial education." A native of Princeton, N.J., Paul Tulane had made his fortune in New Orleans and his gift expressed his appreciation to this Southern city on the Mississippi River.

In 1886, the H. Sophie Newcomb Memorial College for Women was established as part of Tulane. The university moved to its present campus on St. Charles Avenue in 1894, but medical school classes were held on the uptown and downtown campuses until the 1960s.

Research in many disciplines has flourished at Tulane through the establishment of centers such as the Roger Thayer Stone Center for Latin American Studies, the Middle American Research Institute, the Tulane/Xavier Center for Bioenvironmental Research, the Murphy Institute, the Tulane Cancer Center, the Tulane Center for Gene Therapy and the Newcomb College Center for Research on Women.

In the fall of 2005, following the nation's worst national disaster—Hurricane Katrina—Tulane was confronted with unprecedented challenges and, if those

challenges could be mastered, tremendous opportunities. The administration and the Board of Tulane University faced redefining and renewing the university for the future. University President Scott Cowen called the resulting plan "the most significant reinvention of a university in the United States in over a century."

A broad-based Renewal Plan was adopted that has at its center a focus on an exceptional undergraduate program that is campus- and student-centric and a dedication to the holistic development of students. In addition, Tulane's undergraduate core is surrounded and strengthened by superb graduate, professional and research programs that build on the university's historical strengths and distinctive characteristics.

The core of the plan is an academic reorganization designed to achieve greater integration and synergy among related disciplines, to focus resources on programs of existing strength, and to place greater emphasis on science and subjects related to the transformation of urban communities. These changes reflect a bold approach to reinventing Tulane University and allow the university to hold fast to its ideal of world-class quality. The university's ultimate goal remains to offer students the maximum opportunity to be successful—academically, intellectually, and in their personal commitments and aspirations.

Looking ahead, Tulane's programs will be shaped by the university's direct experience with Hurricane Katrina. This experience provides faculty, staff, and students with unprecedented research, learning and community service opportunities that will have a lasting and profound impact on them, the city of New Orleans, the Gulf Coast region, and other world communities.

Letter from the Chair of the Music Department

It is my great pleasure to welcome all of you to the Tulane University Music Department. We are delighted to host the 2006 International Conference on Computer Music. Thank you for your confidence in our Music Department, and in New Orleans. I hope that you will have a marvelous time discovering the beauty and the unique culture of this city.

This conference plays an extraordinary role to enhance our ability to understand music, an art-form which, to virtually all of us, is a passionate and powerful visceral experience and a beautiful obsession. We are all aware of the power of music to harness emotion. We also know how important music is to our species and to what degree music is at the heart of human nature - there are scientists who claim that music is more fundamental to our species than language. Music is unusual among all human activities because no known human culture in the recorded past has ever lacked music.

But what really is music? How do we listen to music? How do we recognize timbre? How do rhythm and rhythmic patterns or specific formal designs that we know influence our ability to appreciate a particular work or a particular genre? How do we compose music? Science can already provide the answers to many of our questions - questions about memory, creativity, musical imagination, perception, and the overall processes in the human brain that allow us to appreciate music.

The similarity between artists and scientists is unquestionable. According to William Forde Thompson, the work of both scientists and artists involves similar stages of development: from a creative exploratory stage to testing, to application of set procedures, often requiring additional problem-solving. Even artists' studios and scientific laboratories share similarities as most involve several different projects in various stages of development, or incompletion. Music and science involve specialized tools and in both cases the results are open to interpretation. Both seek the truth, but know that it is changeable and contextual. There have been many disproved hypotheses and just as many works of art, initially hailed as a work of genius, and later forgotten.

This conference is a continuing effort to bridge the gap between the two areas, music and science, from understating the computational systems in our brains thanks to the computer technology, to musical analysis, to computer applications in music. Welcome to the extraordinary world of art and science.

Sincerely,
Barbara Jazwinski,
Chair, Tulane University Music Department

Established in 1909, the Newcomb Department of Music is a department of the School of Liberal Arts at Tulane University. Our students can pursue a general Bachelor of Arts degree in Music, Bachelor of Fine Arts degrees in Musical Composition, Musical Performance, Jazz Studies and Musical Theatre, a Bachelor of Science degree in Music Science and Technology, and the equivalent master's degrees.

At Tulane, music occupies a unique academic space that embraces the creativity of the arts, the traditions of critical analysis of the humanities, and the intellectual abstractions of mathematics and the sciences. Our department fulfills a very complex role as we prepare our students to successfully function in the musical environment of their choice and provide them with the tools to fulfill their creative potential. We currently offer an array of different courses from those that focus on the development of performance and traditional compositional skills to courses that emphasize composition for electronic media, algorithmic composition, digital signal processing, electronic instrument design, and music business. We also devote a great deal of attention to our many excellent vocal and instrumental ensembles including the choir, the concert and marching bands, the orchestra, the jazz combos and the various other chamber groups.

Students interested in a degree in music have many different options regarding their area of specialization. They can focus on the traditional fields such as performance, composition, or music history or pursue such interdisciplinary venture as our new program in *Music Science and Technology* which involves multidisciplinary research relevant to the creation and the perception of music and the development of innovative approaches to the scientific study of music media.

In addition to a challenging curriculum, principal characteristics of music study at Tulane include lectures and recitals by international, national, and local performers, presented regularly in multiple concert venues, and the creative support of many distinguished alumni.

For more information see http://www.tulane.edu/~music

Welcome from the Chair of the 2006 ICMC

I still remember fleeing New Orleans on August 27, 2005 on a hot Saturday afternoon after feverishly fortifying my newly moved-in home's windows with plywood just three blocks off the Tulane University campus. My wife, cat, and I had no idea that after crossing the longest bridge on the planet we would not return for a long time. On the contrary, I expected to return and teach the following Monday—a gross miscalculation. Our journey first took us to Jackson, Mississippi, then further north to Clarksville, Tennessee. Realizing that we would not be able to return any time soon (if ever) to New Orleans we wound up in West Lafayette, Indiana, staying at my brother's home (at least for a while) with uncertainty clouding every hope as communication lines had been severed with the community back home. With countless hours glued to the TV and Internet and finding next to no information about our area other than through blogs, Internet picture posts, and nebulous satellite pictures I contemplated attending the 2005 ICMC.

The decision to go was surprisingly easy — I had taken upon myself the responsibility to chair the 2006 ICMC conference and needed to report to the ICMA and its members regarding the status and the feasibility of hosting it in November 2006. But perhaps more importantly this conference was now so much more than a gathering for our computer music community. It was an event that would directly impact the recovery of a city and a school that would need all the help and confidence it could muster. I gave the board members and our computer music community an honest and hopefully detailed enough assessment on the outlook into November 2006 through my own analysis and I suppose the rest is history.

It cannot be said enough that it was incredibly touching to witness the support of friends from all over the nation. As a result of this outpour of generosity I was able to take our graduate students and myself to Dartmouth College where we spent the fall continuing our work and studies in Hanover, New Hampshire. The support from our community has not ended there — volunteers to help with the conference from Dartmouth College, University of Virginia, University of Florida, Princeton University, Louisiana State University, and Loyola University has caught me by surprise in the most positive manner possible and hope that you will have the opportunity to meet them in person during the conference. Going even further and coordinating ICMC attendee volunteers to build homes in New Orleans for the Habitat for Humanity is yet another level of humanitarian effort lead by Jen Wang that exemplifies the support that we have witnessed since Katrina devastated much of New Orleans.

It is thus a special honor for me to serve as conference chair although I had no idea that I would be directly dealing with every facet pertaining to contracts, grants, sponsorships, publicity, conference/concert production, conference management, event programming, accommodations, accounting, social programs, workshop coordination, and the banquet! It has indeed been an incredibe experience from which I have learned so much and would sincerely like to welcome everyone to New Orleans. As you may already know, this year's conference theme is "Multidimensionality." We have tried to reflect this theme in various facets of the conference, including putting together a 12-jury member music selection committee, programming works for live-radio broadcasts, collaborating with SEAMUS for the first time in the history of the ICMC, being the first southern state in the United States to host the ICMC, and programming many events that reflect the multidimensionality of our continually developing field.

There are more volunteers, organizations, and sponsors to thank than I have space to mention here, but my sincere gratitude goes out to everyone who has contributed in bringing this conference to fruition at a time and place where we are still struggling to get on our feet. I truly hope that you will have a memorable time in New Orleans—l'aissez les bon temps roulez!

Sincerely,
Tae Hong Park
Chair, ICMC 2006

Doo Jin Ahn
Kyoung Hyun Ahn
Michael Alcorn
Apple
Mark Applebaum
Jon Appleton
Newton Armstrong
Audix
Dartmouth EA Graduate Students
Diane Banfell
JoAnna Bannon
Michael Batt
Paul J. Botelho
Steven Beck
Steve Berkley
Biz-mentor
Kristine Burns
Perry Cook
James Cook
Ted Coffey
Cord-Lox
Kathleen Crago
Chris Crowley
Cycling ‘74
Charles Dodge
Don Elbers
Electrotap
Empreintes DIGITALes
Tom Erbe
Georg Essl
GAPSA
French Consulate General in Houston
Ichiro Fujinaga
Genelec
German Consulate General in New Orleans
Bob Gluck
Jim Harley
Nicole Heigh
Sandy Hinderlie
Barbara Jazwinski
Hye Won Kim
Baty Landis
Zhiye Lee

Javier Leon
Elainie Lillios
Max Mathews
MixMeister
Maxim IC
Sandra Neal
Parallax
Joseph Patrick
Sam Pluta
Larry Polansky
Miller Puckette
Thomas Reese
Conner Richardson
Travis Scharr
Yuri Spitsyn
Yamaha

Welcome from the President of the ICMA

On behalf of the International Computer Music Association (ICMA), parent organization of the ICMC (International Computer Music Conference), It is my true pleasure to welcome you to New Orleans, to participate in our 2006 conference under the theme; "Multidimensionality."

The first ICMC was held at Michigan State University in 1974. Since that time the ICMC and ICMA have grown and expanded as we have offered conferences each year. We have circled the globe many times to meet in Europe, Asia, and North America. We have also been able to offer more and more programs and support for composers, researchers, students, and fans of computer music. Our Journal of New Music Research Distinguished Paper Award, and the ICMA Best Presentation Award honor exceptional research writing and presentations at the conferences. The concerts and music CD present the absolute best of the artistic output of our community. The commitment of the ICMA board is strong to continue improving our organization, increasing benefits and programs for members, and supporting future organizers of the ICMC. We are also excited about the SEAMUS connections at this year's conference, with multiple events being curated and sponsored by both the ICMA and SEAMUS (Society of Electro Acoustic Music in the United States).

As we find ourselves gathered in this truly multidimensional city, which is at once international and uniquely American, we can be proud of the continuingly diverse nature of our growing computer music community. Our field is truly well represented and showcased in this historical city of art, architecture, food, academics, business, and perhaps most of all, music. All of the wonderful nicknames for New Orleans, from the "Crescent City" to "The Big Easy," evoke memories for anyone that has ever visited her, and evoke rich images for those who have never been fortunate enough to share in all this wonderful city has to offer. We are truly fortunate to be hosted here by the world-class Tulane University Music Department, and we also thank all of the sponsors and others who have made this conference possible. The difficulties that New Orleans has faced throughout her history, and especially in recent times, are well known to the world. But through the tireless efforts of our hosts and the people of New Orleans, we all anticipate a fantastic conference.

We look forward to enjoying the fruits of all their hard work, and enjoying the charms of this wonderful city.

Sincerely,
Perry R. Cook
President, International Computer Music Association

Conference Chair
Tae Hong Park, *Tulane University*

Paper Chairs
Georg Essl, *Deutsche Telekom*

Panel Chairs
Bob Gluck,
State University of New York

Tae Hong Park,
Tulane University

Music Chair
Paul J. Botelho, *Tulane University*

Ichiro Fujinaga, *McGill University*

James Harley,
University of Guelph

The Music Selection Committee

Michael Alcorn,
Queens University

Jon Appleton,
Dartmouth College

Natasha Barrett

Daniel Peter Biro,
University of Victoria

Martin Breindl,
Alien Production, Vienna

Ted Coffey,
University of Virginia

Reuben De Lautour,
Istanbul Technical University

Mara Helmuth,
University of Cincinnati

Sung Ho Hwang,
Korean National Univ. of Arts

Paul Lansky,
Princeton University

Tom Lopez,
Oberlin College

Bill Matthews,
Bates College

Dennis Miller,
Northeastern University

Adrian Moore,
University of Sheffield

Virgil Moorefield,
University of Michigan

Rodrigo Sigal
Mexican Center for Music and Sonic Arts

Late Night Concerts Music Selection Committee

Newton Armstrong,
Dartmouth College

Sam Pluta,
Columbia University

Scott Smallwood,
Princeton University

Paper Selection Committee

Balazs Bank
Steve Berkley
Stefan Bilbao
Antonio Camurri
Jaeho Chang
Perry Cook
Roger Dannenberg
Giovanni De Poli
Simon Dixon
Cumhur Erkut
Masataka Goto
Henkjan Honing
Dale Joachim
Sergi Jorda
Richard Karpen
Michael Lyons
Guerino Mazzola
Eduardo Miranda
Thomas Noll
Sile O'Modhrain
Iroro Orife
Francois Pachet
Richard Parncutt
Stephen Pope
Miller Puckette
Davide Rocchesso
Xavier Rodet
Robert Rowe
Mark Sandler
Gary Scavone
Stefania Serafin
Xavier Serra
Mary Simoni
Julius Smith
Tamara Smyth
Daniel Trueman
George Tzanetakis
Vesa Välimäki
Domenico Vicinanza
Marcelo Wanderley
Ge Wang
Gil Weinberg
Gerhard Widmer
John Worthington

Paper Reviewers

Eric Allamanche
Moreno Andreatta
Daniel Arfib
Richard Ashley
Federico Avanzini
Mark Ballora
Balazs Bank
James Beauchamp
Juan Pablo Bello
Steve Berkeley
Nicola Bernardini
Jeffrey Bernstein
Stefan Bilbao
William Birmingham
David Birnbaum
Jordi Bonada
Eli Brandt
Chantal Buteau
Vittorio Cafagna
Emilios Cambouropoulos
Jorge Castellanos
Sergio Cavaliere
Jaeho Chang
Elaine Chew
Parag Chordia
Art Clay
Jason Cohen
Nick Collins
Perry Cook
Jason Corey
Tom Cortina
Leandro Costalonga
Sofia Dahl
Roger Dannenberg
Philip Davidson
Peter Desain
Simon Dixon
Carlo Drioli
Stephen Downie
Eric Eizemann
Cumhur Erkut
Mikael Fernstrom
Kelly Fitz
Arthur Flexer
Federico Fontana
Jason Freeman

Anders Friberg
Guillermo Garcia
Hugo Solís García
Martin Gasser
Lalya Gaye
Günter Geiger
Amalia De Goetzen
Emilia Gomez
Fabien Gouyon
Lorin Grubb
Rachel Hall
Keiji Hirata
Matt Hoffman
Gunnar Holmberg
Julian Hook
Alexander R. Jensenius
Randy Jones
Sergi Jorda
Mark Kahrs
Martin Kaltenbrunner
Ajay Kapur
Haruhiro Katayose
Youngmoo Kim
Mikael Laurson
Marc Leman
Thomas Lidy
Yi-Wen Liu
Dan Livingstone
Tapio Lokki
Alex Loscos
Michael Lyons
Sander van Maas
Soeren Tjavad Madsen
Dave Malham
Joseph Malloch
Mark Marshall
Aaron Master
Guerino Mazzola
Anders Meng
Stefan Mueller
Axel Mulder
John Murray
Charles Nichols
Kia Ng
Markus Noisternig
Thomas Noll
Rolf Nordahl
Sile O'Modhrain
Naotoshi Osaka
Margit Painsi
Richard Parncutt
Henri Penttinen
Johann Petrak
Stefan Petrausch
Jeremy Pickens
Pietro Polotti
Ville Pulkki
Hendrik Purwins
Lance Putnam
Rudolf Rabenstein
Geber Ramalho
Chris Raphael
Matthias Rath
Davide Rocchesso
Robert Rowe
Stephen Rush
Bruno Ruviaro
Gary Scavone
Diemo Schwarz
Stefania Serafin
William Sethares
Elliot Sinyor
Tamara Smyth
Bob Sturm
Tom Sullivan
Sachiyo Takahashi
Sten Ternstrom
Belinda Thom
Adam Tindale
Caroline Traube
George Tzanetakis
Riitta Väänänen
Vesa Välimäki
Domenico Vicinanza
Ge Wang
Gerhard Widmer
Geraint Wiggins
Jonathan Wild
Scott Wilson
Woon Seung Yeo
Tomoko Yonezawa
Diana Young
Qijun Zhang
Laura Zattra

This year, the music selection process was completed remotely through an on-line music submission system, combined with mail-in submissions of video DVDs for video works or works that required video. All submissions were completely anonymous – the only identification marks that jury members had access to were unique ID numbers. There were no jury member meetings where jurists convened to listen to works together over a 2-3 day period. In fact, the jury members themselves were not aware of who was on the committee.

The jury members had approximately two months to complete the review and report ratings of the works (also done on-line) to the ICMC music and conference chairs. There were a total of 559 successful submissions. From the 559 works submitted 121 works were programmed for the morning/afternoon/evening concerts, 10 as installations, and 4 for the pre-conference afternoon concert. Two pieces were also programmed in the pre-conference afternoon concert not part of the submission process. The evening pre-conference concert presented works not part of the ICMC selection processes showcasing the Onix Ensemble from Mexico. An additional 44 pieces were programmed for the Digital Jukebox Program, 21 of which were programmed for the WTUL 91.5 FM (Tulane radio) ICMC radio broadcast and interview event during the ICMC conference.

The music selection process was divided into two phases. For phase 1, jury members were given approximately one month to turn in their ratings via an on-line system. The submitted pieces were divided among the 16 jury members, and each jurist had the option to reject two and/or accept two works at the end of this stage. The rest of the pieces were given ratings from 1 to 5. For video works, this special acceptance and rejection model did not apply, as the total number of video submissions was much lower than the audio works submitted. For phase 2, the review task consisted of the total number of submitted works minus the rejected and accepted pieces from phase 1. In the 2nd phase, after the works were randomly shuffled and assigned to the jury member, jurists were required to rate all works.

There were two groups of jury members – jurists for works that included video (5) and jurists for works that did not have a video component (12). The non-video jurists were Michael Alcorn (UK), Jon Appleton (USA), Natasha Barrett (Norway), Paul J. Botelho (Chair – non-voting, USA), Daniel Peter Biro (Canada), Ted Coffey (USA), Mara Helmuth (USA), Sung Ho Hwang (Korea), Paul Lansky (USA), Bill Matthews (USA), Adrian Moore (UK), and Rodrigo Sigal (Mexico). The video jurists were Reuben De Lautour (Turkey), Tom Lopez (USA), Alien Production (Austria), Dennis Miller, and Virgil Moorefield (USA).

The jurists themselves were allowed to submit works to this year's conference; however, all works were subjected to the same selection process and no jurist's work was automatically programmed for the conference events (no jury member reviewed their own works). The maximum rating a work could receive was 10 form cumulative points obtained from phase 1 and 2. The final selection of works was done by the conference chair where the cut-off was at 7 points (this roughly corresponded to the total concert time available for the conference). All pieces that were above 8 were programmed unless it was technically impossible or performers were not available. Other criteria that played minor roles in the final programming of the concerts were instrumentation, technical feasibility, representation of the multidimensionality of the field of computer music (having a healthy number of video works, acousmatic works, interactive works, etc.) within the confines of the ratings received from our jury members.

As part of the ICMC-SEAMUS collaboration, we also programmed one concert representing 12 works from the SEAMUS membership. The selection process was administered by SEAMUS.

Finally, the Late Night Concert music selection was coordinated by a separate music selection committee and chair. The selection process was similar to that of the "regular" music selection process; however, it required only one phase and ratings were given as before from 1-5. Newton Armstrong (USA) and Scott Smallwood (USA) were panel jurists, with Sam Pluta (USA) as coordinator. From 62 successful submissions, 12 were programmed for presentation at the conference.

Paul J. Botelho
ICMC 2006 Music Chair

Tae Hong Park
ICMC 2006 Conference Chair

THE PAPER SELECTION PROCESS

For ICMC 2006, 174 papers were successfully submitted and received via the SuviSoft system from 23 countries. The papers were distributed to the 44 members of the Paper Selection Committee (PSC) who were chosen by the ICMC Organizing Committee. The members of PSC then selected other scholars in the community to peer review the papers. Many of the papers were reviewed by the PSC members themselves. The Organizing Committee is very grateful to the total of 140 dedicated scholars who volunteered their time for the reviewing process of ICMC this year.

Each paper was reviewed by at least two, and in most cases three reviewers. Papers were accessed either as "Excellent," "Very Good," "Good," "Average," and "Poor" in each of the following four categories: Relevance to the Conference, Technical Content, Originality, and Clarity of Presentation. The reviewers were also asked to rate Overall Quality as one of "Award Quality," "Accept," "Marginal Accept," "Marginal Reject," and "Reject." The reviewers also rated themselves as whether they had "Very Good," "Good," or "Fair" expertise on the subject of the paper they were reviewing. Finally, the reviewers provided separate comments to the authors and to the PSC.

The results of the reviews were converted to a 10-point scale and the final decisions to accept or reject papers were performed by the Paper Chairs. This task was made difficult due to the exceptionally high number of quality paper submissions. In the end 143 papers (100 papers, 33 posters, 10 demos) were accepted and approved by the ICMA Board of Directors for presentation at ICMC 2006.

Georg Essl and Ichiro Fujinaga
ICMC 2006 Paper Chairs

Tae Hong Park
ICMC 2006 Conference Chair

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Conference Registration Fees

	Early bird before 8/18/06	Late registration after 8/18/06	On site reg. 11/6/06-11/6/06
Non-student ICMA member	US$ 320	US$ 420	US$ 520
Student ICMA member	US$ 220	US$ 300	US$ 390
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Daily Registration Fees (on site, for one day)

Student	US$ 85
Non-Student	US$ 130

Workshop Fees

Chuck/Audicle Programming Language	US $40
Introduction to HCI: Sensor Interface Design and Implementation	US $40
Mathworks Simulink (Matlab)	free
WolframTones (Mathematica)	free

Banquet Tickets

Steamboat Natchez Banquet Tickets	US $55

Wednesday, November 8, 2006
6:30 PM - 9:00 PM

The banquet includes a 2-hour cruise aboard the Steamboat Natchez, departing from the French Quarter onto the Mississippi River, among the sights and sounds of one of the world's busiest ports and in view of stately riverside plantations. A New Orleanian buffet dinner on the steamboat is included, and a live jazz band and cash bar will be available. Transportation from Tulane's Uptown campus to the banquet will be provided.

Following the banquet we will have the Late Night Concert in the French Quarter area at the Sound Café. Please see the Late Night Concert schedule for details. Transportation will be provided from the Natchez to Sound Café or back to the ICMC hotels. Transportation after the Late Night Concert to hotels however will not be provided.

About the Natchez

The New Orleans Steamboat Company is no newcomer to the Mississippi or to America's steamboat heritage. Their parent company has been operating steamboats since 1817, longer than any company in the world. Today's New Orleans Steamboat Company offers a fleet of excursion vessels, ranging from the authentic steamer Natchez to the modern John James Audubon, that can entertain people in groups as large as 5,000 with food, entertainment, transfer services, and more.

The Natchez is the ninth steamer to bear her illustrious name. Her predecessor, Natchez III, raced the Robert E. Lee in the most famous steamboat race of all time and even today, the Natchez is proudly the undisputed champion of the Mississippi. The ship is one of only six true steam powered sternwheelers plying the Mississippi today. The Natchez combines the best of contemporary construction and safety and comfort standards, with all the authenticity and style of her classic steamboat gothic predecessors. The Natchez, true to tradition in every detail, is reinforced by a captain and crew sporting an unfailingly gracious manner and 1880s vintage uniform caps.

Keynote Speaker Biography

Max V. Mathews was born in 1926 in Columbus, Nebraska, USA. He studied electrical engineering at the California Institute of Technology and the Massachusetts Institute of Technology where he fell in love with computers—first with analogue computers and then with digital computers. He worked at Bell Telephone Laboratories in Behavorial and Acoustic Research from 1955 to 1987. In the 1970's and 1980's he was the first scientific advisor to IRCAM. In 1987 he joined the Center for Computer Research in Music and Acoustics, CCRMA, at Stanford University.

At Bell Labs he developed techniques for studying speech coders on digital computers by putting digitized speech into and out of the computer. In 1957, with the encouragement of John Pierce, he wrote a program, Music I, to synthesize music on an early IBM digital computer. Subsequent programs Music II—Music V provided a foundation for present day computer music technology. In 1969 he with F R Moore created the Groove system, a hybrid digital-analogue system capable of real-time live performance. Since joining CCRAM he has concentrated on making new controllers, particularly the Radio-Baton, to facilitate more expressive live performance on electronic instruments.

Keynote Address

"Thoughts on the Past and Future of Computer Music"

Thursday, November 9, 2006
8:00 PM
Dixon Hall (at evening concert)

The first part of the talk will focus on Max Mathews' memories and opinions on the history of computer music, from its beginnings at Bell Telephone Laboratories in 1957 to its current state everywhere. In the second part, Mathews will focus on free speculation on where computer music should go in the future.

Keynote Lecture

"Experiments with Phase Filters"

Friday, November 10, 2006
9:50 AM
Freeman Auditorium

For the past five years, I have been experimenting with a computer algorithm that I call a Phaser filter. The algorithm is a difference equation based on a rotating complex number. A complex number, viewed as a two-dimensional vector, is sometimes called a Phaser, hence the name of the filter. The resulting filter is a high Q two pole resonant filter that is well behaved in terms of stability and is easy to re-tune dynamically during a performance. The filter is about twice as expensive in terms of computer multiplies and additions per sound-wave sample than most other filter algorithms but laptop computers now are so fast that they can run a bank of several hundred Phaser filters in real-time.

In this talk I will demonstrate some uses of large banks of Phaser filters to process and "color" pre-recorded sound-waves. The filtering will be done in real-time. With sufficiently high Q filters, strong perceptions of new "pitch" can be imposed on the sound-waves. The filter bank can be based on a wide variety of timbres with harmonic or non-harmonic overtones. The filter bank can be tuned to traditional chords or chord progressions. Sound-waves containing wide-band noises and percussive sounds are particularly appropriate as inputs to the filter-banks.

ICMC 2006 CONCERT SCHEDULE

CONCERT SCHEDULES

AND

PROGRAM NOTES

FOR

PRE-CONFERENCE,

MORNING,

AFTERNOON,

EVENING,

LATE NIGHT CONCERTS,

DIGITAL JUKEBOX AND WTUL 91.5 FM RADIO

INTERVIEWS/PERFORMANCES

Pre Conference Concert 1 **Rogers Chapel**
1:30 PM **November 5, 2006**

SYSTEMFEHLER — Diego Garro (UK)
10:25

for tape

never ate so many stars — Ted Coffey (USA)
04:33

for tape

That which is bodiless is reflected in bodies — Matthew Burtner (USA)
12:22

for Tibetan bowl and computer

San Francisco Airport Rock — Jon Appleton (USA)
03:23

for tape

Epitaph (Four Voice Canon #21) (tmfg) — Larry Polansky (USA)
04:00

for tape

Vanitas — Steve Everett (USA)
15:54

for pipe organ and computer
Randall Harlow, organ

SYSTEMFEHLER

It has been indeed an interesting, albeit difficult, challenge to articulate (musical) time using what perhaps can be regarded as the most 'un-musical' sound materials you can possibly find: dull ringing tones, harsh sonic spurts, piercing pikes of energy across the audible range of frequencies. Working in the seclusion of a digital audio studio I felt free, for once, to mishandle sound equipment and software applications in order to generate most of the glitch material featured in SYSTEMFEHLER. The composing act required a preliminary exercise of taming these stubbornly wild sounds, an exercise during which I unwittingly acquired, beside some tinnitus, an insight on the feeble nature of technology, its transience, its inherent instability. The transitory nature of the sonic detritus coming from the failure of these sophisticated tools mirrors their increasingly shorter and shorter life span. SYSTEMFEHLER may well be the soundtrack of the upgrade-rat-race that is engulfing us all in the rich world: the 'latest version', running on the newest gizmos, while the old ones are already polluting the life of the less fortunate. A blip from a computer soundcard in London, a rusty circuit board dumped, with thousand more, somewhere in China…

never ate so many stars

The piece proceeds from recordings of poet Jean Valentine reading her own work and a few other odd bits of text. One of these is a quotation of Martin Buber: "So long as the Heaven of Thou [ital.] is spread out over me the winds of causality cower at my heels, and the whirlpool of fate stays its course . . . No deception penetrates here; here is the cradle of the Real Life." This spoken text is broken up at the ellipsis, and a rather beautiful line describing the moment of her mother's death is inlaid there. Other materials consist of all sorts of synthetic and recorded 'tones', glitch and groove elements, granular textures and field recordings [mostly Bali]. Their composition is inspired by Johns, Rauschenberg, and Ray Johnson -- among others.

That which is bodiless is reflected in bodies

"That which is bodiless is reflected in bodies" (2005) explores notions of disembodiment through the combination of physical and virtual objects and environments. Through acoustic modeling, the audience is physically immersed inside a giant singing bowl. The title is derived from a principle put forth in Artemidorus' Oneirocritica (ca. 200 AD), a large compendium of dream interpretations. The physical body of the bowl is reflected in the virtual space. The piece involves two areas of my research into computer sound synthesis: 1) SOS (Spatio-Operational Spectral) Synthesis (Burtner/Topper DAFX 2002, LADII 2004); and 2) multichannel physical modeling synthesis applications (Burtner/Serafin ISMA 2002, DAFX 2002). I created the piece for

Jefferson's Rotunda Dome Room at the University of Virginia, a space resembling an inverted bowl. No sampled sounds were used in the piece, every sound being generated by a computer; but my hope is that the music is organic and alive, as if the room were breathing and dancing and ringing.

San Francisco Airport Rock

This is one of a series of pieces written in 1996, begun in 1967 with "Newark Airport Rock" in which people in airports were asked, "What do you think of the new electronic music?" Beneath the random comments is a laid-back, California-like MIDI salad typical for 1996. In 1997 reviewer Glenn McDonald wrote, "the result does for music-appreciation about what Frank Zappa's "Porn Wars" did for obscenity." Also in the series are "Sheremetyevo Airport Rock" (2002), "Narita Airport Rock" (2003) and the soon to be completed "Lupepa'u Airport Rock."

Epitaph (Four Voice Canon #21) (tmfg)

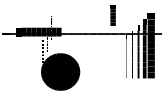
Epitaph is a four voice canon using my own guitar improvisation as subject matter, along with MEAP software and some ancillary Java routines for "arranging" the quadraphonic distribution, fades, and so on. The source material is five guitar improvisations on fretless electric guitar, with a very limited set of materials (harmonics, glisses, open strings, etc). Each guitar part uses a different guitar tuning, based on harmonic series 1, 3, 5, 7, and 11. Each part is shorter than the previous, in the manner of a mensuration canon. Each part is "sorted" in four different ways: according to pitch, chroma, segment length, and a combination of centroid and spectral stability. The resultant (20) parts are processed by some Java programs, to alter the start times of the canonic voices, and to impose compliex set of loudness curves on each part. Each "sort" has a progressively slower fade: the piece is composed of 20 staggered, overlapping fade-ins. Another set of programs stochastically distributes the 5 voice canon (of 20 sub-voices) over time into four channels. Each channel eventually ends up with the same "sort" for each of the five voices. I think of the piece as a kind of 5:4, a heterophony of ideas (including location, improvisation, and feature detection). (Thanks to Douglas Repetto and Dan Ellis for help with the piece, especially for adding features to MEAP to facilitate some specific needs. Thanks to Travis Garrison for some audio advice.)

Vanitas

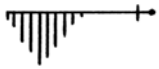
Vanitas, Latin for vanity, refers to a type of still life consisting of a collection of objects that symbolize the brevity of human life and the transience of earthly pleasures and achievements (e.g., a human skull, books, musical instruments, decaying fruit and flowers, a mirror, and broken pottery) – a reminder that worldly riches cannot stop man's inevitable decay. Such paintings were particularly popular in the sixteenth and seventeenth centuries, especially in the Netherlands. This work is an aural recreation of the vanitas

still life in slow decay. This work was written for live electronic processing using the Kyma Sound Processing System. Four to eight microphones are placed as close as possible to the organ case in a vertical array on both sides of the performer. If possible, it is desirable to place the microphones inside the organ case to avoid feedback issues related with microphones placed in acoustically rich halls and churches. This audio is then processed through eleven computer Sound Objects in Kyma created by the composer. Each Sound Object consists of three or more spectral filter, delay, and diffusion effects. Each Sound Object is scheduled with the Kyma Timeline and is notated in the score as Kyma 1-11. Ideally a four channel sound system with a fifth sub-bass channel, all hidden from audience view is preferred for playback. The goal of the live electronic processing is to subtly enhance timbral shifts, spatial location, and tuning of the organ sounds.

Pre-Conference Concert Presenting the Onix Ensemble



paul j botelho (USA)

i.  *ii.*  *iii.* 

9’

for flute, clarinet, piano, violin, cello, voice
paul j botelho, voice

ion x-4 Tae Hong Park (Korea)
3'50"

for flute, clarinet, piano, violin, cello

Invocations Barbara Jazwinski (USA)
10’

for piano, violin, cello

Onice Ioqum Eduardo Gamboa (Mexico)
5'

for flute, bass clarinet, violin, cello, piano

Paramel VI Steve Montague (UK)
8'

for piano, flute, clarinet, cello

Intermission

Sonic Farfalla — Rodrigo Sigal (Mexico) — 8'

for flute and electroacoustic sounds

Smash — Jennifer Higdon (USA) — 5'

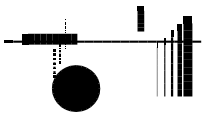
for flute, clarinet, piano, violin, cello

For Those Who Secretly Listen — Georgina Derbéz (Mexico) — 7’

for flute, clarinet, piano, violin, cello

El Aguila Bicéfala — Gabriela Ortíz (Mexico) — 11'

for flute, clarinet, piano, violin, cello



Transmission … forth I - ……

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ion x-4
Piece written for Onix Ensemble (2006).

Onicem Ioqum
About Onicem Ioqum, Gamboa says: “When Alejandro Escuer asked me to write a new work for Onix Ensamble, he mentioned that he needed a short piece, full of energy and that it could close a program. I followed his indications but also like to add a touch of humour and informality. The work turned out almost a like game, therefore the title in Latin can be translated as “Onix Games” where the five instruments have fun and joke arround, imitating each other with an improvised feel.

Paramell VI
Paramell VI is a version that comes from Paramell V which was commissioned by the Swedish two piano team, Mats Persson & Kristine Scholz and written while Montague was in residence at The Mac Dowell Artists’ Colony, Peterborough, New Hampshire in the winter of 1981. Paramell V (a) is a solo version arranged for a concert Philip Mead was giving in Cambridge (England) later that season. Montague also arranged the work for solo piano with three instruments “colouring” the solo line. I decided no to call that version “Paramell V (b)” so instead called it “Paramell VI”. Each version is virtuoso toccata “moto perpetuo” reflecting his early interest in the so-called ‘minimalist’ US composers and the idea of gradually increasing the density and intensity of the keyboard fury until it reaches full throttle at the climax of the work. These three “paramells” radically depart from the minimalist canon by their clear sense of growth, climax and dénouement, something not usually

found in minimalist pieces at the time. "Paramell" is an invented word combining the words "parallel" and "melody".

Sonic Farfalla
Sound is a wave that travels through the air until it has no energy left. What would the difference between sound and a butterfly (farfalla)?. The piece explores the brief existence of a butterfly or flute within dense sound world. Dedicated to Alejandro Escuer.

For Those Who Secretly Listen
"For Those Who Secretly Listen" borrows the title from a poem by Friedrich von Schlegel, which is also an epigraph from the Schumann's Fantasy Op 17: "In earth's variegated dream, a quiet sustained note sounds through all other notes for those who secretly listen." A sustained sound that can be heard and maintained trough the texture is the motif of the piece. Because of the pianistic origin of my source of inspiration, the piano plays a leading role almost like in a concertante work. The piece is dedicated to Onix Ensemble and was composed thanks to the support of the National Fund for the Arts as part of my project with the Sistema Nacional de Creadores

El Águila Bicefala
"The two heads eagle" (2005) is dedicated to the Onix Ensamble and was written thanks to the support of the Programa México en Escena of the Fondo Nacional para la Cultura y las Artes award. On textiles and fabrics of the Mizteca zone of the Metlatónoc are exquisitely conceived embroideries of fantastic birds with extended wings and two, three or even six heads. The two heads eagle was a common graphic motive from the beginning of colonial times. These eagles are bilaterally symmetric and flexible designs that fit into rectangular or triangular spaces. Such motives have evolved through history and one can discover an iconographic resemblance with the Habsburg's eagle. Just like in the designs on the textiles, Ortiz's piece is based on geometrical similarities. Musical motives are interwoven in such a way that they overlap in order to create various geometrical acoustic shapes that unfold through a continuous musical discourse, a discourse where past and an imaginary future references meet to shape what the composer perceived as a unified present: a dual discourse that reflects my personal history through a syncretism that has permeated my cultural background.

Concert I **Dixon Hall**
11:00 AM **Monday, November 6, 2006**

Music — Cort Lippe (USA), 12:00

for alto saxophone and computer
Griffin Campbell, saxophone

Bay — David Durant (USA), 07:34

for tape

Hastening Toward the Half Moon — Elaine Lillios (USA), 09:25

for laptop

In the Very Eye of Night — John Ritz (USA), 08:50

for tape

Arrival — Terence Pender (USA), 05:27

for video

Analogies of Control — Richard Nance (UK), 11:37

for cello and tape
Onix Ensemble

Music
This piece was composed for solo bass clarinet and an interactive multimedia computer system consisting of two Macintosh computers. The computer part for sound processing was realized using Max/MSP. It transforms the bass clarinet sound in the time-domain and spectral domain in real-time. Granular sampling, harmonizing, frequency shifting, phasing, and spectrum analysis/re-synthesis are employed. During the performance, a camera is focused on the performer on stage. The computer for image processing handles these incoming video images in real-time using the software that has been developed by the composer. The processed images are projected to the screen on the stage. The sound of the bass clarinet influences the processing of the images, thus the performer can control the image projection as well as sound diffusion.

Bay
Much of the source material for Bay (2005) was created using recordings of objects that had personal significance to me. These recordings were then used as the basis for samples that were used in a sampler and as manipulated sounds inserted into the mix. An analog modeling digital synthesizer was also used in the composition. The title refers to Mobile Bay on the Alabama Gulf Coast which separates the city of Mobile from Baldwin County. This piece was written right before and right after Hurricane Katrina struck the Gulf Coast. The compositional process was halted for two weeks by a lack of electrical power. The Mobile Bay was significantly affected by the storm as were all of our lives.

Hastening Toward the Half Moon
Hastening Toward the Half Moon strings together a series of vignettes on life's eternal mysteries; murmuring, wandering, yearning amongst the drifting tides of the unknown. Hastening Toward the Half Moon was commissioned by New Adventures in Sound Art, Toronto. Source material for this composition was generously contributed by Douglass Bielmeier, Nicole Carroll, Gregory Cornelius, Matthew McCabe, Joshua Plocher, Bryan Stanbridge, and Paul Thomas.

In the Very Eye of Night
The laws of macro- and microcosm are alike. Travel in the interior is as a voyage in outer space: we must in each case burst past the circumference of our surface – enter worlds where the relationship of parts is the sole gravity.

Arrival
Arrival (2004) is meticulously constructed from human actions recorded through advanced motion-capture technology, in which the movement but not

the appearance of the actor is preserved. Such movements are mapped onto synthetic 3D characters, which are then choreographed in an intricate 3D environment. Arrival reflects on the patterns of individuals moving in an interior space. This space is an ambiguous one, evoking office, apartment building, mall, and airport – and also the synthetic worlds of the video game. The piece presents viewers with not only a spatial, but also a temporal puzzle, for while half the figures move forward in time, the others move in reverse; and since the piece loops perfectly, it has no beginning or end. For this performance a single pass of the video will be presented, but when shown in museums it is typically controlled by the viewer using a large knob that controls both the speed and direction of playback. The relationships between the figures and their actions are complex and hard to decode, as they carry and exchange briefcases, edit surveillance video- tapes, draw maps, write texts, answer phone calls, steal and photocopy pages, burrow below and clamber above. The work demands close scrutiny of the kind one imagines a detective devoting to surveillance footage: playing, pausing, and rewinding it. It forms a disturbing mirror to the networked surveillance systems forming not only at our borders, but also in our minds.

Analogies of Control

This is the live performance version of Analogies of Control. It is a three channel work. Two channels are diffused to the audience, and one delivered to the performer via headphones. The performer plays the sound in the headphones as accurately as possible. The two cellists who have performed it thus far have delivered extraordinarily different renditions. The accompaniment part is made primarily of cello samples, but the score part is not. In fact, the sounds of the score are virtually impossible to imitate exactly, so choices must be made by the performer as to what aspect of the sound is appropriate to the instrument and the piece.

Moving Boundary Problem — Thomas Ciufo (USA) 12:00

for two computer-mediated musicians
David Birchfield, computer

Mobile Variations — Wolek Krzysztof (USA) 08:30

for tape

e — Barry Moon (UK) 07:30

for flute and computer
Elizabeth McNutt, flute

Dream Tableaux — Madelyn Byrne (USA) 06:02

for guitar and computer
Javier Olondo, guitar

Dorothy-F6 — Juan Arturo Parra (Netherlands) 07:00

for Bansuri (Hindu flute) and computer
Onix Ensemble

Combine (after Rauschenberg) — Jason Geistweidt (UK) 11:33

for tape

Prelude — Richard Dudas (USA) 04:00

for flute and computer
Elizabeth McNutt, flute

Blue Water — Massimo Fragala (Italy) 07:45

for tape

Gnomoncholia — Spencer Topel (USA) 06:00

for violin and computer
Onix Ensemble

Air — Juraj Kojs (USA) 07:40

for fujara in A flat and electronics

Moving Boundary Problem
Moving Boundary Problem is a multi-channel, interactive live electronic work for two performers. The piece has developed around a gestural language that explores the sonic and expressive capabilities of a pair of hybrid acoustic/electronic instruments. Utilizing a wide range of computer interfaces and signal processing techniques, these composed instruments extend acoustic sound sources including found objects, flutes, and percussions. moving boundary problem is a manifestation of the unique acoustic, gestural, and human relationships that emerge from interaction with and through these new instruments.

Mobile Variations
Mobile Variation explores space as a composition element. I decided to avoid using prerecorded material in this piece and to create all the sounds from scratch, employing various synthesis techniques. This allowed me to study the very nature of sound, its various shapes and colors as well as the almost endless possibilities of technology.

e
This improvisation for flute and computer is part of an ongoing attempt to create meaningful dialogs between performer and computer. In this case, the 'conversational model' has been extended so that the computer has a vast range of potential states. These states represent the computer's 'personality'. The computer is influenced by the performer, as it measures amplitude, pitch and timbre, both immediately and statistically over longer durations. The computer is additionally influenced by information gathered from the internet in real-time. These multiple influences are used in the attempt to give the computer a unique identity, rather than one imposed upon it by the performer or programmer.

Dream Tableaux
Dream Tableaux is a composition for guitar and computer-generated sounds. This piece is a reflection on various dream scenes, all having to do with various forms of travel, and on Alan Lightman's book, Einstein's Dreams*. In both the dream scenes and the Lightman book, time and reality take on fluid and poetic qualities. The reflections may be poignant, adventurous and exciting, anxious and frustrating, or peaceful and meditative. The structure of the piece is based on ternanry form (A-B-A). The outer A sections are slower in tempo and feature manipulated samples of a Tibetan prayer bowl being sounded on the flat surface of an acoustic guitar. Many of the computer's opening motives are played by the guitar in the closing A section. The B section features variations on an ostinato in the guitar's part. The computer part

was realized on a PowerBook G4 using the Tassman Physical Modeling Synthesizer, Absynth, Reaktor, GRM-Tools, and Audio Sculpt. The prayer bowl samples form the basis of many of the computer's sounds, either literally as in the A sections, or abstractly as heard throughout the piece. Many of the computer-generated sounds are based on metallic, string, or air/noise timbres. *Einstein's Dreams is a fictional collection of dreams. The author suggests that these are dreams that Einstein might have had while working on the theory of relativity.

Dorothy-F6
Dorothy seeks to musically represent the generation, evolution and trajectory of an imaginary tornado. In order to achieve this, the system used on the piece is wind filtered by a (apparently) rudimentary instrument, and the exploration of all possible variations in timbre, dynamic and articulation. The results are present in the piece not only as autonomous sound units but also as real-time control information for the synthetic timbres of the piece. The latter is based in a serie of algorithms based on Iannis Xenakis ‘gendys”, together with a number of real time spectral manipulation, all of them implemented on Max/Msp.

Combine (after Rauschenberg)
Robert Rauschenberg began attaching found objects to his abstract canvases in the 1950's. At first these were merely additions to a two-dimensional flat canvas, but eventually, these combines (as Rauschenberg referred to them) left the gallery wall entirely, becoming free-standing 3-dimesional assemblages. By incorporating found objects such as 'Coca-Cola bottles, clothing and newspaper clippings,' the artist not only 'broke down barriers between painting and sculpture,' but questioned the barriers between 'art and the outside world.' Combine incorporates vinyl recordings collected from charity shops in Belfast, Limerick and Galway. This work, like Rauschenberg's 'combines', is a free-standing assemblage in which diverse sources acquire new meaning and context through ever-evolving juxtapositions. Spatially, I chose to dispense with the typical front/back orientation of the concert hall; thus, the focus of the work is continually moving around the space.

Prelude
"Prelude for Flute and Computer" (2005) is the first in a projected series of short interactive pieces for solo wind instrument with live computer processing (the second prelude, for clarinet, was premiered in 2006). The piece was written for friends Dmitri Tymoczko and Elizabeth Camp, as a musical gift for their wedding. Since Dmitri, also a composer and computer musician, had been formulating a lot of theoretical ideas about diatonic scales around the time I began to compose the piece, I decided the piece should be based on scales whose half- and whole-step pattern does not repeat at the octave. Ironically, however, the solo flute line is comprised mainly of skips and leaps, focusing on the implied harmonic underpinning of different sections of the

scale, and contains very few diatonic steps! The computer's role is to make a subtle commentary on the solo flute line and provide an unobtrusive harmonic support where appropriate. The piece was premiered by flautist Matthias Ebner at the Real-Time/Non-Real-Time Electronic Music Festival in Basel, Switzerland in June of 2005.

Blue Water

This piece is an attempt to imagine life inside the water. Life inside the water is showed a surreal world full of reflected lights, strange codes, games of colours. Objects and people reflected in water, go into a new dimension where realize water is life, purity, vital energy, and also destructive nature force. All the sounds have been processed with Csound program.

Gnomoncholia

Albrecht Dürer's "Melancholia I" has been an ongoing source of inspiration for artists and composers, notably Edmund Campion. I had the pleasure of seeing Melancholia in person at a rare presentation of Dürer's three master engravings at Cornell's Johnson Museum. Of particular curiosity was Dürer's depiction of the "gnomon" square, interesting from a mathematical standpoint because any column, row, diagonal, or quadrant can add up to a single constant (here the constant is 34, a divine number). What could Dürer be suggesting by putting this here? For one, it could represent some kind of knowledge hidden or not yet unlocked to the character(s) in the picture, a kind of unattainable perfection. For Gnomoncholia, I represent the Dürer square through pitch, rhythm, timbre, and acoustic space. This is achieved by supposing that any random numerical element between 1 and 16 (the numbers of the square) can be used to activate violin samples organized in specific rows and patterns in the square, thus representing an "ideal" existence of the gnomon-square in musical terms. Furthermore, the computer "reacts" to the violin music, changing it's inner patterns to avoid "agreeable" harmony. In this way, I have tried to unite this composition with the metaphor suggested by Dürer's print: at the moment a solution seems realizable, it manages to remain elusive.

Air

"Air" (2006) is a composition for the fujara, an indigenous Slovakian bass pipe instrument, and electronics. The composition presents a dialogue between physical fujara and fujara physical model. The virtual fujara extends the timbral qualities of the physical instrument. The model further facilitates circular breathing, a performance technique impossible to attain on the physical fujara. Melodic structures of "Air" were derived from three Slovak folk songs.

BinJib — Jinok Cho (Korea)
11:04

for voice, daekeum, and geomungo
Korean Traditional Instrument Ensemble

Breathing Space — Nicola Scrutton (Scotland)
13:07

for tape

Enlargement — Shu Matsuda (Japan)
09:00

for bass clarinet, computer, and video
Category 5

Faith in Red — Charles DeTar (USA)
06:30

for tape

Symmetries — Ivica Bukvik (USA)
06:30

for violin, hyperinstruments, and computer
Daniel Mason, violin
Newcomb Dance Company, dance; Barabara Hayley, choreography

Instrument Landscape #3 — Peter Mcilwain (Australia)
13:36

for tape

Panmure Vistas — Bruce Pennycook (USA)
10:00

for violin and Max/MSP

BinJib
Bin-Jib(empty place), based on the text of Gi Hyung-do's poem "Bun-Jib" describing deep sorrow and closed mind caused by the lost love, is presented in Korean traditional song form. In this piece, the process of making music through continuous communication in the performers is considered important.

Breathing Space
Breathing Space is an acousmatic work that uses the human voice as the only sound source. I have included verbal utterances and various extended vocal techniques but, as the title suggests, the driving force of the work is the breath and its potential to evoke different sensations of space. The piece explores the voice both as an expressive, humane tool of communication and as a more abstract, purely sonorous instrument. In general, Breathing Space continually overlaps the border between literal and metaphorical implications and also the ambiguous relationship between 'natural' and processed sounds. The form proceeds as a relatively free exploration of these multiple vocal possiblities but comes to pivot on a transformation from intense saturation to extreme reduction.

Enlargement
This piece was composed for solo bass clarinet and an interactive multimedia computer system consisting of two Macintosh computers. The computer part for sound processing was realized using Max/MSP. It transforms the bass clarinet sound in the time-domain and spectral domain in real-time. Granular sampling, harmonizing, frequency shifting, phasing, and spectrum analysis/re-synthesis are employed. During the performance, a camera is focussed on the performer on stage. The computer for image processing handles these incoming video images in real-time using the software that has been developed by the composer. The processed images are projected to the screen on the stage. The sound of the bass clarinet influences the processing of the images, thus the performer can control the image projection as well as sound diffusion.

Faith in Red
Faith in Red is a work for 8 channels. Its meaning is abstract in the same way that its sound is abstracted from the source material from which it is made. Red is for qualia, consciousness, blood, good luck, passion, insomnia, love, intensity, danger. Composed in New England in early 2006.

Symmetries
Symmetries (for computer and violin) is an experiment in relegating musical structure and expression to the inherently stupid box of transistors. By concurrently utilizing various GNU/Linux audio software it was composer's

intention to generate a lush interactive texture whose frail balance engenders a consistent forward drive. In an ever-changing array of hierarchical probabilities no two instances are expected to ever be the same. The piece has been designed to be completely modular in terms of computer-driven sound diffusion and through a simple alteration of a GUI control can utilize up to 8 channels (8-channel setup being optimal). Another peculiarity of this work is that its entire structure, and subsequently violin part are entirely relegated to the computer's cognitive system. The role of the hyperinstrument is limited to shaping some of the spectral nuances of the sound generated by the computer. Symmetries was originally commissioned by violinist Ania Zielinska from Poland who premiered it in 2005 at ZKM in Karlsruhe, Germany. The premiere was followed by performances at the Sonic Explorations concert series and Music05 festival (Cincinnati, OH), 0th Sound multimedia concert in (Edgewood, KY), and a radio broadcast at Resonance FM station in London, UK.

Instrument Landscape #3

Oboe improvisation for sound source files: Andrew Ross Instrument Landscape #3 comes from a series of works that use a single acoustic instrument as a sound source for the creation of a multi-channel electro-acoustic work. Landscapes #1 and #2 focus on the flute and clarinet respectively, while the most recent piece, Instrument Landscape #3, focuses on the oboe. In these works the set of possible sounds that the particular instrument can produce is regarded as a sound world, or a sonic landscape. Each piece is one journey through the multiple sonic possibilities of each instrument. The landscape analogy is reinforced in Landscapes #1 and #2 by the use of a live solo part for the featured instrument. Here the solo line is treated as a character in the landscape that takes the listener though the sound world while at the same time responding to the sonic features that are encountered on the journey. Unlike the preceding works, Instrument Landscape #3 has no solo part. Instead it is an acousmatic piece that focuses entirely on transformed sonic material. Here the sonic forces in the piece are presented on an orchestral scale rather than the more intimate soloistic level. The piece features multi-layered, massed sound textures that are created from a range of granular processes that allow the source sound of the oboe to be rendered in recognisable and unrecognisable (synthetic) ways. This sets up a polarity in the piece that enables the exploration of the continuum of sonic possibilities between these two points. Structural shape in the piece was created in conjunction with a number of software processes (created by the composer) that are featured in three distinct sections: Section 1 – 0'00", Section 2 – 6'00" and Section 3 – 9'45" (to end 13'35") In Section One the shape evolved from a single real-time granular improvisation that was edited and added too with second improvisation at 3'42". The overall texture of this section can be described as a kind of granular heterophony in that various gestures of the oboe are presented using asynchronous grains with durations that are generally in the region of 700ms. This gives rise to a granular texture

that is almost melodic in character, a feature that is supported by the use of slow moving drones derived from the granular part. This creates an interesting ambiguity between the texture as a melodic line on the one hand, and a dispersed texture on the other. The more mobile and soloistic passage at 3'42" could be described as monophonic as it is made up of a stream of much shorter grains that feature more pronounced movement in both register and space. Section Two consists of slow moving, layered textures reminiscent of polyphonic choral writing. They are also created from granular processes, this time using very long grain durations. Layers are gradually built up combining and growing in intensity to a climax creating a simple but powerful shape. The last section is the most intentionally structured featuring a slow and literal presentation of an oboe melody, a mobile granular soloistic part and a series of interjecting granular textures. The oboe melody is presented as a countermelody to the mobile soloistic granular part that weaves between the blocks of interjecting granular clusters. The natural oboe sound is obscured by the other two layers and only emerges clearly right at the end of the piece. This is intended to suggest that the oboe has been present all the way through the piece, a statement that is a mark of respect for the instrument that was the source of all of the sounds that make up the sound of the landscape.

Panmure Vistas

While holidaying with my family at Panmure Island Park - a remote corner of Canada's Prince Edward Island – I was struck by both the rhythms and power of the natural surroundings and by the Celtic music performed by local musicians at one of the many Highland games and music festivals held on PEI over the summer months. This work for one or more solo violins (in unison – like pipe bands) plus real-time audio signal processing developed by the composer (SuperCollider 2) ranges from vigorous waves of dancing arpeggios to the tranquil moments of a dead calm sea. Panmure Vistas has been recorded by Gascia Ouzounian for CBC Radio and on the Penntech Records CD, "Selected Compositions".

flux (panoramic) James Carpenter (UK)
08:46

for tape

coordinate axis Takashi Nishiuchi (Japan)
05:37

for tape

Black Arrow Sungji Hong (Korea)
06:33

for bass clarinet and tape
Onix Ensemble

Et Ignis Involvens Joao Oliveira (Portugal)
13:30

for tape

CYCLIC MATH SHRED Chapman Welch (USA)
07:00

for electric guitar and computer

Rococo Variations Adrian Moore (UK)
17:15

for tape

flux (panoramic)
A large amount of the source material for this piece was collected from an expansive field in Yorkshire, North England. “Panoramic” refers to the form, since the piece surveys a sonic (and physical) landscape whilst “Flux” refers to the continuous blending of material.

coordinate axis
The theme is flatness and stereognostic sense of the sound. I choose white and pink noise for planarity expression because that makes space evenness. And I thought sine wave was suited for stereognostic sense because it could makeover various sound by changing frequency, amplitude, sustain. The depth of sound would be represented. Furthermore, when I compose a music, I wonder how to express a feel of the air. At this time, I experimented layouting with inorganic sounds regularly. I created several exclusive patches for this by Max/MSP. And I thought it led lack of the air feeling. In that case, a little fluctuation sounds made by synthesizer can do great execution to make spatial extension. I hope you could discover it.

Black Arrow
In Black Arrow, written for bass clarinet and tape, bass clarinet solo part consists of three ideas as follows: the quiet timbral trills, abrupt slap tongues in low register and ghostly fleeting key slap scales. The whole piece develops around or between these three gestures turning on themselves or going through transformations. The latent energy seems to waver in a very low register but gradually the sounds creates a space filled with a strong directional kinetic energy. The succession of rising scales, lofty multiphonics and huge intervallic portamenti intensify the energy and constantly keep up the extreme tension.

Et Ignis Involvens
et ignis involvens This piece is inspired on the first vision of the prophet Ezechiel (Ezechiel 1:4): “et vidi et ecce ventus turbinis veniebat ab aquilone et nubes magna et ignis involvens et splendor in circuitu eius et de medio eius quasi species electri id est de medio ignis” “And I looked, and behold, a whirlwind came out of the north, a great cloud, and a fire infolding itself; and a brightness was about it, and out of the midst thereof as the color of amber, out of the midst of the fire”.

CYCLIC MATH SHRED
CYCLIC MATH SHRED—incorporates two vernacular styles: heavy metal and psychedelic rock and roll. Rather than trying to emulate these genres, the essence or remnants of the styles are incorporated: rarefying the comic and spiritual elements of heavy metal and psychedelic rock respectively.

Rococo Variations

Rococo Variations – for DVD-A (2006). Duration 17:15 Rococo Variations is an electroacoustic piece in 5.1 surround sound based around a series of synthesized harmonic transitions. The piece builds upon an earlier work, Dreaming of the Dawn both in terms of technique and aesthetic. Techniques have been brought 'up-to-date' with very high quality recordings and an investigation into fixed spatialisation using 5.1 surround sound. After completing Dreaming of the Dawn, I was interested in animating basic/base harmonic material and in disguising repetition with structural change. Rococo Variations began with a very simple (and melancholic) 8 bar harmonic passage (of whole notes). Working with pitches and harmonies in this way was extremely difficult as the synthetic voices, once recorded, were resistant to modification. Quite clearly, if a series of manipulations were possible, variation form was going to be one way of maintaining some coherence at the mixing stage. One other problem was the issue of 'notes' and their discreteness. Therefore, in addition to recorded midi files of the harmonic transitions, sequences were 'translated' to MSP enabling glissandi between chords, flexible duration control and dynamic timbral control of synthesis using a wacom tablet. But why rococo? One possible transformation of the initial pitched material involved manipulating its harmonic spectra (perhaps making it inharmonic or animating the internal characteristics of a sound by glissandi). Although not necessarily sonically interesting, the graphic detail of certain sonograms was intriguing. It would be foolish to 'decorate' the piece with these manipulations, doubly so to let this dictate the structure of the piece. But the idea of 'rococo' was set – both in terms of spectral manipulations and also spatial manipulation, spectral panning, and spectral granulation across 4 channels. The variations are quite clearly delineated although cadences at the end of sections were 'imperfect'; semi-terminating, yet handing over harmonic information to the following section.

Elsewhere is a Negative Mirror — Per Bloland (USA)
10:42

for piano and electromagnets
Chryssie Nanou, piano

Path to the Serene — Yuriko Kojima (Japan)
11:00

for flute, violin, viola, cello, harp, piano and computer
Azure Ensemble

Balancoire #15 — Jeremy Baguyos (USA)
06:37

for tape

Fragmentary Seven — Haruka Hirayama (Japan)
10:00

for contrabass and Max/MSP
Ensemble Surplus

Democratia — Lisa Reim (UK)
07:04

for tape

Das Bleierne Klavier — Hans Tutschku (USA)
10:55

for piano and computer

Seven Lonely Rivers — Kristi McGarity (USA)
08:30

for tape and oboe
Ensemble Surplus

les jeux sont faits — Tommaso Perego (Italy)
09:30

for violin and computer
Onix Ensemble

Elsewhere is a Negative Mirror
Elsewhere… is the first installment of a longer piece inspired by Italo Calvino's novel Invisible Cities. In the novel, over the course of discussions between the emperor Kublai Kahn and the explorer Marco Polo, a host of fantastic cities are described. Each of these cities serves both to convey a specific mood and to reflect the evolving views of reality expressed by the two characters. For the composition, I attempted to utilize Calvino's wide-ranging philosophical explorations as well as the structure of the novel itself. Part I follows the first section of the book, in which four types of cities are introduced and revisited, in a pattern that recycles city types with increasing rapidity. The performer's material is constrained by these sections. In addition to the performer playing the piano, a rack of 12 electromagnets is placed over the piano frame, each electromagnet positioned over a string. These are controlled by a Max/MSP patch, each magnet serving to resonate its respective string at variable frequencies. The dampers for the strings being resonated are held up with the sostenuto pedal, thus forcing the performer to move with care around these resonating pitches. The electromagnets are responsible for the performance of a "supertheme", which falls outside the careful structure mentioned above, while the performer's material acts a reflection of each section as conveyed by the supertheme. Note that although the device is controlled electronically, the resulting sound is entirely acoustic, emanating directly from the piano strings.

Path to the Serene
The artistic images for Path to the Serene was first conceived when I was sitting by the river behind my parents' house in Tokushima, Japan, in the summer of 2002. The sun is already behind the hill, leaving the white-pink color brushed in the sky. The black kites soar up in the sky and the insects are making summer noise. The surface of the river changes its texture and color in every moment. I imagine a trip in the air along the river to the ocean. Time passes very slowly... The piece was scored for solo flute with live electronics and five instrumentalists: violin, viola, cello, harp and piano. The signal processing by Max/MSP is done only for the flute part. The sound of the ensemble is to be controlled by an external unit, in case of the lack of the reverbration of the hall. "Path to the Serene" was dedicated to the Azure Ensemble who premiered the piece in NY in 2003 and to the flutist/director of the ensemble, Susan Glaser, in memory of her late husband.

Balancoire #15
After being immersed in the study of the improvisations of Joelle Leandre in the winter of 2006, "Balancoire #15" was created by Jeremy Baguyos as an electronic summary and extension of Leandre's vocal techniques. Most of the

sound sources were selected according to how they could be processed and diffused over 8 channels in a small concert hall. Although it was conceived as an abstract electronic work, "Balancoire #15" cannot escape imposed context from multiple viewpoints. And like the performer who inspired the work, the composer revels in that dynamic relationship between abstract composition and audience interpretation.

Fragmentary Seven
'Fragmentary Seven' for Contrabass and Computer is based upon seven 'components' which are expanded, shifted, or reduced in the time/pitch domain and finally united to create this composition. In this piece Max/MSP is being used to realize the real-time signal processing live computer system. In the signal processing domain, cross-synthesis, granular sampling, as well as standard signal processing such as pitch-shifting, feedback, etc. are all employed.

Democratia
Democratia is an interplay of fragments where junks of sounds are split up into different sizes of segments. Through various combinations of the sonic fragments, related sound-objects may be recombined or dissociated. The result is an intertwined, multi-level sound scape. Gradually, the piece works itself towards a different level of semantics: the spoken text.

Das Bleierne Klavier
The electroacoustic live-treatments of the piano are all controlled by the pianist himself. During his playing the musical gestures are traced and interpreted by the computer program to determine a big ensemble of parameters for the generation and playback of the electroacoustic part. This allows for the player a very direct "action - reaction" between the piano part and the electroacoustic sounds. They become a sort of prolongation of these instrumental gestures. The energy of the instrumentalist is causing decision-making in the electroacoustic part (which never will play exactly the same way) and is controlling equally the sound spatialization around the public.

Seven Lonely Rivers
Many of the electronic sounds in this piece are derived from recorded vocalizations of gibbons. Known as the "singing apes," gibbons are small territorial primates native to the forest area around Laos and Thailand; they live in the treetops and move around by brachiation (arm-swinging), and they are unique among apes for their need to live in mated pairs rather than a large group. Gibbons are also the most endangered primates in the world; a few species have less than twenty members left alive. Gibbon calls can be heard for miles, but are becoming increasingly rare, a fact reflected in the Thai proverb: "When you kill a gibbon you leave seven lonely rivers." Other sounds and melodies in the piece are adapted from a Laotian folk song and recordings of a kaen, a Laotian musical instrument.

les jeux sont faits

Title: “Les jeux sont faits” Duration: 9 min 30 secs circa; Instrumentation: violin, computer and 4 speakers system; Year of composition: 2005; First performed: Basel, Elektronic Musik Festival, June ‘05; other relevant: Conservatorio Giuseppe Verdi, Milan Italy 2005; Electroacoustic Music Festival “Spring in Havana”, Havana, Cuba 2006. Short and long extended phrases of simple melodic patterns get accumulated and re-designed, once entered into the electronic system. The violin, born in 1577, is reflecting into its mirror of time and morphing into an overwhelming flood of new sounds. This piece, written in 2005, is a first attempt in composing a score where both the acoustic and the electronic musical ideas have been thought as a whole. The piece performs an interaction in real time, where all that is heard is guided by the violin sound, that the player models following the score. All the figures and articulation patterns written on the score have been thought as a generating propulsion of the electronic extensions and morphs applied to acoustic sound. So everything is wired to create a sense of unity and the feel of a solo instrument performance.

Coppi — Valerio Murat (Italy)
06:44

for dance and video
Newcomb Dance Company, dance;
Barabra Hayley, Alice Pascal Esche, choreography

Digital Moon-Space — Doo-Jin Ahn (Korea)
08:56

for kayageum and tape
Korean Traditional Ensemble

Drift — Ed Martin (USA)
07:59

for tape

Tracer — David Taddle
07:30

for piano and tape
Ensemble Surplus

a sudden change in the consistency of snow — Peter Swendsen (USA)
08:00

for video, alto sax, and stereo electronics

Deep Sea Creatures — Natasha Barrett (Norway)
13:47

for tape

whisps — David Kim-Boyle (USA)
07:15

for bass clarinet and computer
E. Michael Richards, clarinet

Ray 6 — Kari Vakeva (Finland)
07:10

for tape

PercusBot Study No. 1 — Troy Rogers (USA)
10:00

for robot

Coppi
Coppi is a shining sabre that cuts across the air the rarefied vibrations of the voice and the expanded atmospheres of dreaming.Coppi is an intermedial work that explores the land of the myth and melts its spirit in thunder´s bang and machines of new perception. Seven minutes of music and voices, one life one universe fusing in a single multiple memory of sighs interferences revelations and deep silences.

Digital Moon-Space
The electronic sound is based on Moon-Hyun's Voice who is the Korean traditional music singer, with the live instrumet is a Kayageum that is a Korean traditional string instrument.

Drift
Drift (2003) is a depiction of the mind moving through different states of consciousness and how discrete thoughts become jumbled and distorted as the mind arrives in a dream-like state. These levels of consciousness are represented by distinct musical textures or sound worlds. The piece opens with abrupt changes between these textures, but as the piece progresses they are developed, layered, and morphed into one another until it is impossible to know which exists at any moment. By the end of the work, the music represents the mind being trapped in a continuous spiral between consciousness and unconsciousness from which it cannot escape. Drift was composed at the University of Illinois Experimental Music Studios using audio samples that were recorded by the composer and processed, edited, and mixed using Protools and Csound.

Tracer
Use of the stereo field produced by electronics to increase the apparent acoustical space of a solo instrument is a process that has interested me for a long time. Tracer makes extensive use of digitally processed piano samples as well as purely synthesized sounds to provide expanded resonance of the harmonic fields implied by the piano lines and to expand the piano’s apparent acoustical soundspace. At times, the roles are reversed as the piano supplies harmonic and/or gestural intensification of the electronics. Overall the piece involves a kind of developing variation where the material is developed and varied, those variations providing the basis for further variation. In addition to “traditional” electronic type sounds, the electronic part often serves an orchestral function. Tracer was commissioned by and is dedicated to pianist Mark George.

a sudden change in the consistency of snow
a sudden change in the consistency of snow—for alto saxophone, electronics, and video—is an interpretation of that kind of early-winter snow that is almost sleet or hail, changing all the time, sometimes softening enough to bestow the lovely winter quiet that exists when everything is covered and dampened with snow, but other times quite hard and sharp and percussive as it bounces on frozen surfaces. As air and surface temperatures fluctuate, the falling water sometimes vacillates between textures in short spurts and sometimes slowly modulates in extended gestures. It can pound on your hood and resonate inside your head and then subdue its intensity to reveal a unique sonic spaciousness. Each element of the piece—saxophone, electronics, and video—traverses these continua of temperament, texture, precision, and expansiveness. As is the case with snow itself, stillness is rare and momentary up close, but very much present on the whole.

Deep Sea Creatures
The ocean's physical nature, mystery, drama, mythology and concept have inspired art and culture throughout history and throughout the world. "Deep Sea Creatures" is from the second half of the larger electroacoustic work "Trade Winds" (52'00, 2006), and is inspired by the known and unknown nature inhabiting the vast expanse of sea. The original concert format is a 16-channel source comprising second order ambisonics and conventional spatialisation techniques. "Trade Winds" was commissioned by NoTAM with funds from the Norwegian Cultural Council and the Norwegian Composers' Fund.

Ray 6
Ray 6 starts brightly yet in slow motion, but speeds up until to the end. Technical realization approach: 15 files of synthesized sounds (e.g. modelled percussive or pitched instruments) as raw material. Use of “sound warping”. Huge clouds of overlapping sound objects as a result.

whisps
whisps was written in 2006 and explores some spectral processing techniques which have been of interest for some time. During a performance, the sounds produced by the bass clarinet player are analyzed in real time and complex spatial trajectories for their spectral components are established. Other spectral filtering and delay techniques are also applied in various subtle ways. The spatial techniques were developed by the composer at ZKM in the summer of 2005. I am grateful to all of the personnel there for their assistance. I am also especially grateful to E. Michael Richards for his assistance in the preparation of the work.

PercusBot Study No. 1
PercusBot Study No. 1 is the first work composed for this ensemble of computer-controlled, mechanically activated drums and bells (a percussion

robot named "PercusBot") created by the composer. When not engaged in performances at weddings, funerals, and Bar Mitzvahs to earn money for new appendages and objects to strike, PercusBot enjoys exploring dense polyrhythmic textures and fast tempos, as well as making musical gestures along the continuum that ranges from sounds which are clearly connected to physical and visual gestures, to those which have no such obvious connections.

Concert VII **Dixon Hall**
11:00 AM **Wednesday, November 8, 2006**

DUST — Hans Timmermans (Netherlands)
10:28
for tape

Dreamtime — Eric Honour (USA)
08:42
for didgeridoo and digital playback

Overlooked — Edrex Fontanilla (USA)
08:52
for video

Microcosmos — Chih-Fang Huang
05:05
for tape

Et Iterum Venturus Est — Arthur Hunkins (USA)
04:30
for real-time Csound5

The Gongs of Tiny Incerts — Jeffrey Stolet (USA)
09:05
for tape

lines — Stephanie Loveless (Canada)
09:30
for video

DUST
'Dust' is about small particles building up structures, sometimes huge structures. 'Dust' is about drops of water, showers of rain and sunlight colouring clouds and curtains of water. 'Dust' is about intimate meetings with very small sounds and distant hearing of massive sound-structures. 'Dust' is about Granular Synthesis. 'Dust' is about fascination for sound, about a passion for music and for life. 'Dust' is a bit about me. 'Dust' was premièred on 12 December 2005 in the 'Muziekgebouw aan het IJ' in Amsterdam. Hans Timmermans is a senior lecturer at Utrecht School of Music and Technology. He teaches (among many other subjects) Composition of Electronic Music and Computer music, Composition for Modern Dance and technical subjects like Music Software Development. Recently he worked on MEDIATE, a European R&D-project in which an Interactive Installation for children with autism was developed. 'Dust' was composed and produced using his own software. Parts of that software were developed as teaching examples for classes on Music Software Development in C++. 'Dust' is composed from sounds found on old cemeteries in Hardenberg (Netherlands) and in Barcelona (Cementiri de les Corts) and sounds from Mercat Boqueria, a well known food market in Barcelona. Other sounds were studio-recordings of Evelien van den Broek (sigh, breathing) and of Makiko Sadakata (Japanese texts). Most of the sounds are processed using techniques like Granular Synthesis, filtering with Karplus-Strong resonators and 2-pole resonators.

Dreamtime
The dreamtime is the Aboriginal concept of the time before and surrounding the birth of the world. All that ever was or will be existed, nascently, in the Dreamtime. If current popular culture had a dreamtime, how would it sound? "Dreamtime" for didgeridoo and digital media explores the sonic connections between the dreamtime and the urban world.

Overlooked
Collaboration with Robert Goldschmidt. "Overlooked" is video art that plays with the dimension of time, and the scale and perspective of visual and aural abstractions. "Overlooked" vacillates between synchronicity and release to encourage a heightened state of visual and aural awareness in the viewer. The work attempts to explore ideas of being, structure, and stability through ambiguity between the use of analogue and digital processes.

Microcosmos
The "Microcosmos" depicts a tiny world from the view of both time and space, with the colorful montage soundscapes by the esthetics fused by the contemporary and the traditional. This piece is based on the electroacoustic

materials including direct and indirect synthesis techniques. The direct synthesis materials are composed from the flexible software synthesis design, and the indirect sample based sound synthesis is mainly derived from the sound samples with many transformations. The sound samples include the environmental sound and some acoustic instrumental sound played by western and Chinese instruments. The piece also shows the possibility to integrate the extremely different cultures by the digital concrete.

Et Iterum Venturus Est

ET ITERUM VENTURUS EST for realtime Csound5 (2006) Dr. Art Hunkins was founder and director of the University of North Carolina at Greensboro Electronic Music Studios (Greensboro, North Carolina, USA) until his retirement in 1997. His recent compositions, many of which (like this one) are for real-time Csound, a software synthesis language, are available at his website: http://www.arthunkins.com. Most of his works are meditative and somewhat mystical in character, reflecting his Roman Catholicism. Et Iterum Venturus Est, here presented in a 4-channel version, bears the following subtext: Et iterum venturus est cum gloria... cujus regnat non erit finis. Credo - Ordinary of the Mass Adveniat regnum tuum. Fiat voluntas tua, sicut in coelo et in terra. Lord's Prayer Its dedication reads: To Huston Smith - who shares his wisdom so graciously

lines

In this meditative audio-visual piece, hand-processed Super-8 images and a single piano phrase are slowly repeated -- stretched and abstracted by processes of re-photography, re-phonography and digital manipulation.

Concert VIII **McAllister Auditorium**
1:30 PM **Wednesday, November 8, 2006**

Protean Profile — William Kleinsasser (USA)
20:00
for two amplified pianos and computer
duo runedako

LongTrainRunning — Shinichiro Toyoda (Japan)
04:43
for laptop computer

Timelines la — Victor Lazzarini (Ireland)
07:30
for classical guitar and computer
Javier Olondo, guitar

Spaces Between — Jen Wang (USA)
11:00
for flute, violin, piano, and tape
Onix Ensemble

Mannam (Encounter) — Christopher Dobrian (USA)
13:00
for daegum and computer
Korean Traditional Ensemble

dirty grooves — Iain Armstrong (UK)
03:50
for tape

noise + mobile — Samuel Pluta (USA)
06:53
for piano and tape
Teresa McCollough, piano

Forgotten Dreams — Jason Bolte (USA)
08:20
for double bass and computer
Jeremy Baguyos, double bass

Protean Profile
Protean Profile for two solo pianos, computer and interactive sampling instrument, was composed in 2005 and is derived from a second path through the design of another work by the composer entitled Innocent Proteins (2003). These two perspectives on the same composition are part of a larger set of three pieces that presents an expanded design based on the musical expression of initiation, continuation, and closure. Protean Profile presents one of two paths through the second of the three parts using musical continuation as an underlying metaphor. Protean Profile is designed as an expression of repeating and mutating phrases following classic rhetorical models that balance repetition and presentation of new ideas. The controlled balance of conservation and invention develops to create the expanded work. Within this rhetorical rhyme-like framework the music's surface lyricism and texture emerge from intertwining, complex threads intended to present flowing, non-metrical music of complex and organic gestures and patterns. The two piano soloists present differing musical roles in the composition. Piano 2 performs the work from notation that emphasizes strictly determined events and represents a traditional virtuosic solo presentation. Piano 1 integrates traditional deterministic performance with two extended free improvisations involving sampling of the piano 2 performance. These samples are manipulated and replayed as a layer within the piano 1-second solo improvisation. The open improvisations are intended to create space within the piece for a musical perspective beyond that of the composer, akin to a work of architecture welcoming free experiences within its space. These improvisations are to be open to musical exploration, made within a context of respect for the overall work and its ideas, and allowing for integration of yet unforeseen musical intentions and ideas.

LongTrainRunning
This work "LongTrainRunning" is expressing a surge which we have not ever experienced before. All sounds were improvised by the combination of train sounds and powerbook with various DSP techniques. By using these techniques, I aimed at construction in the world which cannot be expressed only by one side.

Timelines Ia
Time-Lines Ia for guitar and computer is a rhythmically-driven piece, using long ametric rhythmic cycles in its outer sections. The piece uses the computer to create an immersive environment for the guitar by using waveguide-based resonances and spectral transformations. Its middle section features interchanges between the live guitar and electronically-generated sounds.

Spaces Between
"Spaces Between" began as an experiment in connecting disparate elements: acoustic and electronic sounds, western and eastern sources of inspiration, early and modern compositional techniques, and amateur and virtuosic modes of making music. It was inspired by my first few months studying tai chi, and the way that stillness, mindfulness and subtlety impart significance and depth to that practice. The tape is derived from samples of a wooden harp, prepared and played using aluminum knitting needles. The samples were then processed using RTCmix, Logic Pro, and Ableton Live.

Mannam (Encounter)
Mannam is the sixth composition in a series of works for flute and computer titled Interproviplaytions. The computer has been programmed to capture the expressive information from the live daegum performance; the program uses pitch, loudness, and timbre data to shape the computer's sound synthesis and realtime processing. It modifies the sound of the daegum in real time, stores and reconfigures excerpts of the played music, and provides harmonic accompaniment in "intelligent" response to the daegum notes. The daegeum music is composed in idiomatic style, and leaves the performer considerable opportunity for rubato, ornamentation, and even occasional reordering of phrases, in order to respond to the computer's performance, which is different every time the piece is played.

dirty grooves
This piece takes as its starting point noise, specifically the extraneous or usually unwanted noise associated with the various media used for the playback of sound. The crackle of vinyl before a track begins or after it ends, electrical hum, tape hiss, radio interference, digital noise, static and clicks all bring into focus the mechanics of the medium and its potential to obstruct or interfere with the message. Here the message or ‘tune’ is derived from another mechanical music maker, the clockwork music box. Throughout the piece this primary material interacts with or introduces, through purely sonic associations, additional concrete material and so widening the scope of meaning contained in this message. While inherently noisy, harsh and some may say ugly my intention was always to present this kind of material with a sense of beauty and poise and perhaps a touch of nostalgia. The form is static, lingering, suspending time as if caught in a dirty groove.

noise + mobile
noise + mobile is an attempt to merge the sound worlds of beat-based electronica and free jazz piano. While writing the piece I realized all I had been listening to was Autechre and Cecil Taylor. I wanted to see what would happen if I tried to merge these two disjunct worlds. Here is the result. This piece was commissioned by Teresa McCollough for the 2006 Santa Clara University New Music Festival.

Forgotten Dreams

Forgotten Dreams for double bass, max/msp, and digital audio (2003) Forgotten Dreams is an electroacoustic composition that integrates live acoustical performance with fixed digital audio and live computer processing. The inspiration for the work came from the feeling of abruptly waking from a dream (or in my case usually a nightmare), and not knowing exactly what had transpired to force consciousness. The composition explores the possibilities of these dreams, elaborating on snippets of information that can be recalled. Forgotten Dreams was awarded First Prize at the International Society of Bassists 2004/05 Composition Competition - Media Division.

Bruits de raison — Joran Rudi (Norway)
08:00

for tape

steady.unsteady — Irene Buckley (Ireland)
05:20

for video
Mike Hannon, video

Loom (Etude Il pour un enfant seul) — Ge Wang, Perry Cook, Ananya Misra
(USA)
09:14

for tape

Sonofusion — John Thompson (USA)
06:00

for overtone violin
Dan Overholt, violin

Kotmun (A Gate of Flowers) — Suk-Jun Kim (USA)
09:00

for tape

On a Mission from Dog — Margaret Schedel (USA)
05:20

for laptop computer and video
Convolution Brothers, computers

Indra — William Clarke-Fields (USA)
04:09

for tape
Newcomb Dance Company, dance; Alice Pascal Escher, choreography

Bruits de raison
This piece is the second in a collection of studies in noise; the first one is Babel Study from 2003. In Bruits de raison, as in Babel Study, I investigate the formation of meaning in a material that in itself contains few musical references, although the piece makes use of a few recordings of natural sounds with all implications they contain to acoustic environments, space and immediate cognition. However, the piece also has another theme – how the human mind grasps for concepts and models in order to understand itself and its conditions. Thoughts and ideas reciprocally mask and develop each other, rendering some things clear and others, perhaps more significant, obscure. Formally, the piece is quite traditional, and uses a small collection of sounds that repeat and provide variations on phrases and themes. For the historically aware listener, the title further refers to the origin of electroacoustic music and concerts, namely Etudes de bruits and Concert de bruits, invented by Pierre Schaeffer. The themes and title seemed fitting for a work that was written in Bourges during a couple of intense summer weeks in 2005, as a commission from IMEB - an institution with a long and significant history of electroacoustic music and performance.

steady.unsteady
steady.unsteady explores aspects of conflict between order and disarray. 'Steady' material always begins proudly at each entry but is soon to be engulfed by more domineering 'unsteady' material. Calmness interjects resuming the battle if only for a short while.

Loom (Etude Il pour un enfant seul)
"Loom" was created using a new technique of composition called Musical Tapestry, with which the sound sculptor is able to selectively separate real world sound scenes into re-usable component templates and re-compose these templates (with potentially massive time, frequency, and other transformations) into a sonic tapestry. The template extraction, transformation, and re-synthesis are enabled by the new software framework TAPESTREA, which integrates sinusoidal modeling, wavelet-tree decomposition, and transient extraction / manipulation with a novel interactive interface, providing a complete workbench for separating, manipulating, and re-composing natural and other sounds. "Loom" was re-composed using only a handful of different templates extracted from recordings of natural sounds. They include 1) a bird squawk, 2) bird chirp, 3) duck quack, 4) lutine bell, 5) children yelling (9 instances). We re-compose these in the tradition of Musique Concrète, but with tools previously unavailable. For example, a bird cadenza shows the massive time-scale differences one can achieve by morphing a flock of birds (created from a single chirp template) over a wide range. Also, the children's

drone in the second movement is achieved using 100x time-stretching and 50x frequency-warping. Granular synthesis, stochastic modeling, and other techniques are also exploited in our system and in the composition "Loom."

Sonofusion
Sonofusion is an interactive audio-visual piece for the Overtone Violin. The Overtone Violin is an entirely custom built, radically augmented musical instrument that preserves the traditions of violin technique while adding a whole new set of possibilities for the musician. In this piece, the instrument interactively manipulates audio, video, and three-dimensional graphics. The performer journeys through a series of virtual spaces, each with their own set of underlying processes which performer controls through gesture and sound. Partial support for the composition of this piece was provided by IGERT, NSF Grant# DGE-0221713

Kotmun (A Gate of Flowers)
The title Kotmun is a Korean word, meaning ‘a gate of flowers’. In Korea, ornamenting on doors with the drawings or wood-sculpting of flowers was not just an act of decoration; it was one of the common practices to bring good spirits to houses and to people who would live there. Many pass or peek through these doors – an act of desire to get to another space. At some times, however, one just gazes at the doors, and their beautiful flowers and colors. One forgets why she or he was looking at them in the first place or what they wanted to seek beyond them. They are on the border in-between, enchanted by their exquisite beauty. With Kotmun, the composer hoped to auralize this moment of awareness. With the help of poetic elements of recorded sounds and thematic structures of the composition, the composer aimed at creating the uneasiness and yet, spell-bounding experience of this border. Kotmun was commissioned by IMEB (Institut de Musique Electroacoustique de Bourges), Bourges, France.

On a Mission from Dog
Created for the Convolution Brothers, this work explores the relationship between real-time composition and cooking.

Indra
"The Net of Indra is a profound and subtle metaphor for the structure of reality. Imagine a vast net; at each crossing point there is a jewel; each jewel is perfectly clear and reflects all the other jewels in the net, the way two mirrors placed opposite each other will reflect an image ad infinitum. The jewel in this metaphor stands for an individual being, or an individual consciousness, or a cell or an atom. Every jewel is intimately connected with all other jewels in the universe, and a change in one jewel means a change, however slight, in every other jewel." --Stephen Mitchell

metalloidesque electronico-clankered — Christopher Ariza (USA)
13:00

for two percussionists and computer
Ensemble Surplus and NeXT Ens

Nebulae — Stephen Taylor (USA)
10:00

for harp and computer
Ann Yeung, harp

balanfo — Daniel Blinkhorn (Australia)
14:27

for tape

Luna — Lou Bunk (USA)
09:00

for saxophone and tape
Eric Honour (saxophone)

Afterimage 7 — Roland Parks (USA)
10:00

for flute, violin, cello, piano, percussion, and computer
NeXT Ens

Vague Speech — Daniel Zajicek (USA)
07:28

for tape

Parang (波浪) — Su Jin Ko (Korea)
07:50

for haegum solo and tape
Korean Traditional Ensemble

metalloidesque electronico-clankered
This work explores a mixture and a juxtaposition of metric, semi-metric, and ametric materials, from both acoustic and digital sources. The score for this work employs an indeterminate, bi-temporal representation. Five equal-duration segments are given for each player in each of ten sections. Although the number of segments within each section is specified, each player may independently and freely choose segments. In addition, a large-scale dynamic contour is specified for each section. The real-time signal processing system, based on the amplitude and density of acoustic events, produces up to eight polyphonic textures or gestures. The title of this work is taken from Allen Ginsberg's 1961 poem "Television Was a Baby Crawling Toward That Deathchamber."

Nebulae
Nebulae enables the harp to do things it can't do in the real world--long sustaining sounds and slow, sliding glissandos. A computer processes the harp and also accompanies it with a choir of slow, gliding glass harmonicas. The drifting sounds I was imagining reminded me of photographs of nebulas in deep space--vivid and luminous, but impossibly distant at the same time. The (optional) video, rather than straightforward depictions of the real thing, is based on paintings by Hua Nian. The drifting, changing shapes on the screen are controlled by the movement of the harpist's hands playing the piece.

balanfô
balanfô is a work centered around the balaphone, a marimba that features in much African music and is of particular importance to people of the Guinea nation, which is often referred to as the ‘province of the balaphone….’ balanfô is essentially an acousmatic celebration of the balaphone via an assortment of auditory icons, seeking to provide feedback about the actions implicit in the creation of the instrument… Throughout the piece, the sounds of splitting wood, securing calabashe resonators, sawing and shaping of béné slats and hammering frames together have been fused with streams of rhythmic and harmonic material and juxtaposed with chanting, singing, talking, tumbling, crackling, thumping, and spiraling … all of which has been used to emphasize the sonic, as well as experiential significance of the balaphone to the Guinea people. A people who make, play and celebrate the balaphone as part of their collective identity… Extensive computer processing of the recorded sounds are used to augment the sonifications in the work which, in turn add to the inherently multidimensional nature of contiguity between the deeply terrestrial, as with the balaphone and the people of the Guinea nation, and the acutely informatic realization via the computer and the numerous processes made possible with a computer …. I used a balaphone in an

advanced state of disrepair as source material for the work, which was dismantled and used to provide all the sound sources throughout the piece (excluding of course the voice, which is largely left unprocessed)… The work was assisted by the Australian Government through the Australia Council, its arts funding and advisory body.

Luna
Crescent moon- bent to the shape of the cold. –Issa

Afterimage 7
Program Notes for Afterimage 7 Many years ago, when I was a young composition student, one of my professors loaned me a recording of a radio broadcast of Witold Lutoslawski's Les Espaces du Sommeil (1975, for baritone and orchestra). At that time I knew little of Lutoslawski's music and was armed only with the knowledge that he used chance as a means to realize complex orchestral textures and gestures. A curious thing happened when my former professor made this recording from the radio broadcast. The broadcast frequency for the classical station was very close to the frequency for a local jazz station. As such, sometimes the jazz station would 'bleed through' to the classical station or visa versa. During the broadcast of the Lutoslawski, the jazz station was airing a program on jazz fusion. As a result of this 'bleed through' the recoring of the Lutoslawski was peppered with outbursts of high-energy jazz. The professor who made the recording for me never mentioned this and I was left with the impression that Les Espaces du Sommeil contained occasional outbursts of high energy jazz fusion. I thought it was somewhat post-modern, but intriguing considering the absence of this trait in the rest of Lutoslawski's music. I admit to some disappointment when the commercial recording of Les Espaces du Sommeil became available and I heard the work as Lutoslawski intended. However, I remained intrigued with the concept of two stylistically diverse types of music unfolding simultaneously and competing for the listener's attention and I knew that eventually I would explore this idea in a composition. Afterimage 7 is the seventh in a series of works I have composed which explore the integration of computer-generated audio with live acoustic resources. While the focus of each piece in the series varies, the works in the series are all related in that there is an audible relationship between the computer generated material (whether real-time or studio realized) and the acoustic portion of the music. At times, the computer-generated materials are directly reflections (or afterimages) of the acoustic events, and occasionally the computer portion foreshadows or influences the development of the acoustic materials. Afterimage 7 continues my exploration of this relationship, however, it is the first in the series to integrate multiple, simultaneous streams of development. Two streams of music unfold simultaneously, one process-oriented and timbre focused and the other more akin to jazz fusion. The perspective of the listener is primarily rooted in the first stream, with the jazz fusion occasionally bursting through. The computer-generated sounds serve the dual role of enhancing the timbre and process

oriented stream and reflecting or foreshadowing one of the two streams, thereby creating afterimages. Afterimage 7 was commissioned by and written for the NeXT Ens who I am forever grateful to for their superb performances and unflinching support of new music.

Vague Speech
I'm very fond of talking while saying nothing. I think it's very musical.

Parang (波浪)
Parang have two meanings 'Ocean wave' and 'Blue' in Korean. The music has a big blue flow like ocean wave. Sometimes it is calm/azure or rough/cobaltic which change constantly. Using computers to compose music can seem cold and strict. But in this work, I tried to make computer music that flows like water and understand each other with playing Korean traditional instrument 'Haegum'. Ocean wave appears to lead numbers of wave. A various 'blue' color is like an Indian ink painting. Haegum's melody appears numbers of illusion in tape music, which is made by various granular synthesis techniques using CLM(Common Lisp Music).

Concert XI (SEAMUS Concert) **Dixon Hall**
8:00 PM **Thursday, November 9, 2006**

All Your Sprache Are Belong to Strauss — Ivica Bukvic (USA)
01:10

for tape

Talespin — Russell Pinkston
07:04

for piano and Disklavier
Chryssie Nanou, piano

Vox Metallica — Jim Mobberley (USA)
07:30

for tape

Pushing Buttons — Andrew Walters
05:34

for saxophone and electronics
John Doheny, saxophone

Limosa — Brian Evans (USA)
02:15

for video

Amazilla — Brian Evans (USA)
02:15

for video

Facet Delay — Jeff Stadelman (USA)
06:50

for tape

Static Cling — William Alves (USA)
07:48

for video

hub — Ben Hackbarth (USA)
10:48

for flute, piano, percussion, and electronics
NeXT Ens, Danilo Mezzadri (flute)

...and nature is alone — Scott Wyatt (USA)
11:00

for tape

I Started — Christopher Cook (USA)
01:43

for tape

andJon — Maurice Wright (USA)
00:35

for tape

ICMC-SEAMUS Collabortion Concert Notes
SEAMUS is a vital and varied organization whose memberships spans a broad spectrum of aesthetics and technical platforms. These works were selected from works voted by the SEAMUS Membership as top works from the SEAMUS 2006 National Conference in Eugene Oregon and from the SEAMUS Video Selection Committee for the forthcoming SEAMUS DVD Project. Additional short works come from the SEAMUS 20th Anniversary Electroclips contest, which were also chosen by membership vote.

All Your Sprache Are Belong to Strauss
One tbsp. of bad, yet dubiously celebrated translation One cup of king of Viennese waltz Dozen SEAMUS acronym pronunciation recordings Mix it up. Serve cold.

Talespin
TaleSpin was commissioned by the Mead/Montague Piano Duo. It is a short musical fantasy, written in a quasi-romantic style. It has something of a program, too, whose subject may be apparent from some of the section titles: Telltale, Hot Topic, Blissful Ignorance, Morning After Songs, Still Spinning, and Picking up the Pieces. Many of the electronic sounds are processed recordings of a series of strange noises made by composer Stephen Montague, caught fooling around inside an acoustic piano during a recording session in 1995.

Vox Metallica
Vox Metallica, for two-channel fixed digital media, uses a collection of recordings of the non-singing sounds from several different voices, plus recordings of guitars, bass guitar, drum set, and organ as sound sources. The result is a hybrid that at times focuses on just one of these collections, and in other places mixes them freely. Context being a critical part of our memory and pattern-recognition process, Vox Metallica plays with familiar and non-familiar juxtapositions of elements, using techniques of musical phrasing to create longer-term direction as well as coherent shapes in the shorter term. Of course, there's also a drum solo.

Limosa and Amazilla
Limosa and Amazilla: Everything reduces to data mapping and information design. The only hgard question is why we do either. I never got past a fascination with numbers, a desire to write songs, a desire to make pictures.

Facet Delay
The title is adapted from the thirteenth section of a long, delightful text called "Hegel's Eyes," from Steve McCaffery's book, Theory of Sediment. The section's full title is "Recommended filter via Cognitive Component Fact Delay." It was composed during May 2004, for performance on that year's "June in Buffalo" contemporary music festival. I think of the piece as issuing from the simple opening impulse, which returns in various guises, each time setting in motion a train of derivative facets of itself (sonic and conceptual, obvious and abstracted). Adapting the words of McCaffery's text, this work "is motivated to maintain a life-form, induce transparency, necessitate an interstice and localize a pain." As I interpret McCaffery, this may translate as: I wrote out of need to communicate my self; in order to tell a truth; because I love to play with form; and to make something tangible.

Static Cling
I have been interested in the resonant patterns that emerge from the chaos of our world, in the same way in which you can start to see interesting patterns and shapes in the static screens of interstation tuning. In this piece, I have used a computer to transform the sounds of the nightly ritual chaos of local news broadcasts into abstract timbres and static images into patterns of visual resonance (inspired by my association with computer animation pioneer John Whitney, Sr.). In both cases, the patterns are based on harmonic proportions, known in musical tuning as just intonation. Static Cling was created on the Macintosh with Csound computer music language, POVRAY computer animation language, and Adobe Premiere.

hub
I have, over the last several years, been composing works for instruments and electronic sound. Illusion and dialogue between forces has remained an important component of the design of these pieces, but, in this latest work, I tried to create a relationship more physical than just timbral or spatial similarities. I ended up putting speakers in situations where an electronic stimulus is coupled to an acoustic body so that the sonic results are some sort of hybrid between physical objects and speaker playback. By limiting the degree of freedom of the electronic result, something is created that is very similar to an instrument - it synthesizes sounds and gestures that are confined by timbre and space and also leaves a distinct fingerprint of its range of possibilities. Many thanks to SEAMUS for the generous funding that made this work and its performance possible.

...and nature is alone
In the early morning hours of April 26, 1986, a testing error caused an explosion at the Chernobyl nuclear power station in northern Ukraine. The explosion of the reactor released 100 times more radiation than the atom bombs dropped on Hiroshima and Nagasaki. The radioactive fire burned for nine days, expelling more than 190 tons of toxic materials into the atmosphere.

A vast are of Asia and Eastern Europe was contaminated with nuclear fallout. Almost 20 years later, the people of Belarus and Ukraine continue to suffer medically, economically, environmentally and socially from the effects of the disaster. This piece is dedicated to the memory of those who experience the ramifications of such a disaster. The text, written by Elena Filatova, who actually takes rides in the dead zone, was performed for this presentation by Valeria Sobol, who was a school girl in Kiev at the time of the tragedy. Both want you to remember what happened here.

I Started

"I Started" was written for the Society for Electronic Music in the United States 20th Anniversary Electroclips Competition. The piece uses several of the provided sample clips recorded by Paul Rudy at SEAMUS 2002 in Iowa City. The clips take a humorous look at the controversy surrounding the proper pronunciation of the organization's acronym. The samples are used on three main levels: woven into a background of whispers, chopped up and forced into a rhythmic chant, and more literal statements. The title reflects one of the prominently featured clips. The singsong chanting pokes fun at the futility of the good-natured argument.

andJon

The dropped bowl was my favorite sample from the list. It accidentally introduces a beautiful pitched sound into the somewhat monochrome intonating of male voices that dominate the samples. I could not resist the temptation to introduce the words “Jon Appleton” into the mix. I found it fitting that Jon, one of the founders of SEAMUS, and a composer whose music, thoughts about music, and service to the profession has shaped the field of electroacoustic music, should be the one to define the sound of the organization’s name.

Concert XII **Dixon Hall**
11:00 AM **Friday, November 10, 2006**

Underground — Tom Lopez (USA)
08:00

for video

Cidade Maravilhosa — Annie Mahtani (UK)
08:02

for tape

Nodule — Donna Hewitt, Julian Knowles (Australia)
19:54

for eMic and two computers

Montage — Brad Decker (USA)
07:37

for tape

The Blue Box — Charles Nichols (USA)
07:00

video and dancer
Joe Hayes, dance; Carol Cunningham, choreography

November Sycamore Leaf — Paul Rudy (USA)
08:56

for tape

Underground
"Underground" was composed in New York City, New York (2004) for a video by Nate Pagel. This is the second project in a series of works based on subway systems from around the world. The first project was based on the system in Paris and was titled "Métropolitain." This second project features the visual and aural environment of the London underground.

Cidade Maravilhosa
A far away place. Memories. Fragments. Forest. Rain. Favela. Procession. People. Places. The less than perfect source recordings were made in Rio de Janiero in 2005. Cidade Maravilhosa was realized at the University of Birmingham in 2006. For Alice.

Nodule
Donna (eMic) and Julian (laptop) present a new collaborative composition for eMic (vocal interface/ mic-stand controller) and laptop performer, which draws upon a variety of sonic and compositional influences. The eMic, due to its mic stand design bases, invites the use of idiomatic gestural material from popular music. Exploring this idea further, the work seeks to use this gestural material in a sonic and performative context which is influenced by popular music. The performance context is primarily structured according to a 'band/lead singer' (laptop and emic) model, which is both utilized and subverted throughout the course of the work. In many ways the work seeks to bring experimental electronic and popular musics into closer contact, exploring the quite obvious points of intersection and cross-fertilisation.

Montage
Originally conceived as a collection of seven miniature independent movements, Montage consolidates these miniatures into a continuous one-movement work. Sounds were produced from the manipulation of recorded objects and incidental text and utterances. The work establishes a continuum between these two sources by blurring the distinction of spoken language in order to create abstract sound, and manipulating recorded objects to mimic speech. Each section of Montage draws from this continuum in different ways, maintaining a balance somewhere between speech and sound.

The Blue Box
The Blue Box (2005) for motion-capture dancer, interactive computer programming, and MIDI controller Carol Cunningham, choreographer Joe Hayes, motion-capture dancer Charles Nichols, interactive computer programmer and MIDI controller Timothy J. Rogers, motion-capture technician and animator The Blue Box is a piece for dancer, motion-capture

system, interactive computer programming, MIDI controller, and projected computer animation, in which the x- and y-position of both wrists, of a dancer at a remote site, are mapped to MIDI data, which are sent over Internet2, to control interactive computer programming, written in MaxMSP. The y-position of both wrists is used to select between five soundfiles of the same poem read by different voices, and the x-position is used to select a range of samples from those soundfiles. The result is real-time granularization of five soundfiles. These five granular streams are mixed and processed by another performer, at the host site, with the sliders and buttons of a MIDI interface, which controls the MaxMSP patch. The buttons of the interface trigger a rhythmic transposition of the grains, turn on and off comb filtering, and play synthesized FM bell tones, while the sliders control the loudness of each of the five streams, and the level and pitch of the comb filtering. The wrist, head, and back position of the dancer in the motion-capture suit also controls animation based on the poem text. When presented over Internet2, video streams of the dancer and the animation are projected at the site where the computer musician mixes the piece, and audio and video streams of the computer musician are projected at the site where the dancer performs.

November Sycamore Leaf

In December of 2003, a friend sent me a Christmas Card with a photograph called November Sycamore Leaf by Missouri Photographer John Hess. The moment I slid the card out of the envelope sound literally exploded in my head. The bright orange leaf leapt off the card and into my sonic imagination, and as my eyes dug into the details of the image, the music made itself heard before my very eyes. Two years later, in a small cabin high in the Rocky Mountains with no running water but a fantastic view and quietness, the concentration of the photograph bore itself out in the composition of the music, and November Sycamore Leaf came to life over a three day period. "I went to the woods because I wished to live deliberately…and to see if I could not learn what I had to teach, and not, when I came to die, discover that I had not lived." (Thoreau)

Organum — Eric Simonson (USA)
09:30
for piano and computer

The Quiet Play of Busy Pipes — Christopher Bailey (USA)
14:36
for piano, violin, cello, flute, percussion, and computer
NeXT Ens

Nunataq — Petra Bachrata (Portugal)
12:30
for tape

LU — Jing Wang (USA)
09:09
for erhu and Max/MSP

Plastique — Christopher Morgan (USA)
08:00
for tape

klangschatten3 — Seongjoon Moon (Korea)
11:48
for percussion and computer
Ensemble Surplus

Halo — Rob Godman (UK)
08:00
for piano and live electronics
Ensemble Surplus, piano; Rob Goodman, electronics

Organum
Organum is concerned with extending and adapting the idea of the Medieval practice of adding counterpoints to a pre-existing melody. In this case, rather than its being chant, it is a flow of pitches entirely generated by an algorithm. The live performer plays the score and cues the computer to either play sequences ("counterpoints") derived from the material in the score and/or process the live audio in various ways. Sometimes the counterpoint is note-against-note, other times behaving more independently.

The Quiet Play of Busy Pipes
The Quiet Play of Pipes, while not always so quiet, is based on sounds of the distant, ghost-like, whirring of pipes in A/C networks, soda-machines, power conditioners, and so on. I've always had a weird fascination for these sounds, because they seem to imply worlds beyond, pregnant with energy, waiting to burst forth---as if breaking open a pipe would unleash a stream of violent anti-matter unto an unsuspecting universe, or opening a Coke machine would let in an intense all-revealing white light.

Nunataq
Nunataq in the myths of old inuit civilization (Greenland) means a mountain ridge sticking out of a continental iceberg. In this piece I tried to suggest an atmosphere of the times of the old Greenland civilization (darkness, ice, clouds, mist...) ..."I don't know anything, but the life is constantly bringing me face to face to forces which are more powerful than me. We have experiences of generations, because to live is difficult and no women, no men will escape from their fate. That's why we believe in evil. The good does not need special regard, because it is good by itself and does not need worship. On the other side, the bad, which is lying and waiting for us in the dark, endangering us with storms and bad weather, and creeping in between us as a mist, we have to chase away from ways we walk on. People manage so little. We even don't know, if that, in what we believe, is true. Surely we know just one thing - what should happen, will happen..." (from a story of an old Greenland's hunter).

LU
A recurring theme in composer's work is the concept 'balance of dichotomy': East vs. West, tradition vs. modernism, and acoustic vs. electronic. In this particular work this theme is revisited in its attempt to meld together two temporally and spatially distinct instruments – erhu (Chinese two-stringed fiddle) and computer – through the utilization of the computer music language Max/MSP. The title LÜ (Chinese for 'Journey') is methodically chosen here as it illustrates a musical journey of gradual morphing between the roles of erhu and electronics. Over the course of the work, the natural and pure acoustical

quality of erhu gradually gives way to the computer's mounting manipulation until eventually the electronic timbre secures its dominance in the end. The improvisational reprise in the closing stages of the work suggests a mirroring of the one we observe in the introduction; only now the erhu seems to have merely become a shadow of its opposing counterpart. Truly, this work serves as a sheer metaphor to life itself. With the implementation of Max/MSP combining with expression of evolution of timbre, we can render a parallel of reflection in how our own history has continually evolved in the advent of technology through the ages.

Plastique

Plastique is an eight-channel work featuring samples of plastic bottles. I have always thought that a plastic bottle was an interesting combination of a percussive attack with a resonator so for this piece I recorded over 240 samples of various bounces, slides and spins. These samples were loaded into MAX/MSP and processed using ring modulation, soundfile granulation and spatialization software.

klangschatten3

The third piece of the series 'Klangschatten' for ensemble of traditional acoustic instruments and electro-acoustic sound, this was written for percussion and tape. The idea of the piece is not to compose in a traditional sense: I neither tried to refine the sound materials drawn impromptu from my fantasy, nor logically composed them. But the unprocessed, vaguely contoured sound materials are fragmented throughout the piece. Tendence-Mask Algorithm was used to produce these fragments. The piece consists three movements that connote twelve segments.

Halo

Approximately two thousand years ago, the Roman Architect Vitruvius published his 'Ten Books on Architecture'. Amongst many other things he writes of his wok with acoustics in Roman Theatres:- "..... let bronze vessels be made, proportionate to the size of the theatre, and let them be so fashioned that, when touched, they may produce with one another the notes of the fourth, the fifth, and so on up to the double octave. "..... the voice, uttered from the stage as from a centre, and spreading and striking against the cavities of the different vessels, as it comes in contact with them, will be increased in clearness of sound, and will wake an harmonious note in unison with itself." Vitruvius - The Ten Books on Architecture in translation by Morris Hicky Morgon As the title suggests, Halo is indeed a duet between piano and responsive electronics! The vessels, as specified by Vitruvius, have been 'replaced' by digital technology. To some extent, Vitruvius' intentions have been kept… Halo was written for a first performance by the composer and Philip Mead for a premiere at Anglia Ruskin University, Cambridge on 18th November 2005.

Concert XIV **Dixon Hall**
8:00 PM **Friday, November 10, 2006**

American Dreamscape — Steven Ricks (USA)
14:00

for saxophone and video
John Sampen, saxophone

Lametta — Ewan Stefani (UK)
06:45

for tape

Torrid Mix: feat. Jazzy King and Master L.T. — Mike McFerron (USA)
09:15

for piano and tape
Ensemble Surplus

Under the Sea — Chien-Wen Cheng (USA)
06:00

for tape

Secret Pulse — Zack Browning (USA)
08:42

for amplified flute, violin, cello, and tape
NeXT Ens

Circles and Rounds — Dennis Miller (USA)
09:20

for video

Erwin's Playground — Fishman Rajmil (UK)
09:12

for tape

Substitute Judgment + Metal Catalogue — Jeffrey Treviño (USA)
04:30

for video and percussion
Ross Karre, percussion

Juggernaut — Paul Oehlers (USA)
08:59

for cello and tape
William Jason Raynovich, cello

American Dreamscape
American Dreamscape was inspired by a passage from Thomas Pynchon's novel Gravity's Rainbow that makes reference to Charlie Parker and the jazz standard "Cherokee," among other things. While the specific references mentioned above are the primary focus of my piece, other aspects of the text were influential—its rhythmic flow, its form, and the dream-like free association of images and events. I have attempted to create a (primarily) musical experience which is similar, which presents an engaging flow of events with the sort of bizarre juxtapositions one encounters in dreams, and yet which has a sort of logic, albeit its own. As a side note, the use of the word American in the title, while originally inspired by the references mentioned above, began to exert its own influence on the piece and opened me up to even more diverse sources of inspiration. I had been reflecting on the Pynchon passage for some time when I met John Sampen in 2000 at an SCI conference in Ann Arbor, MI. We stayed in touch after that initial meeting, and I was pleased when he was interested in the concept of the piece and supportive of my intent to apply for funding. It was premiered by John Sampen at the 2005 BGSU Festival of New Art and Music. Tonight is the premiere of the solo version; the piece also exists as a quartet for sax, piano, percussion, and bass.

Lametta
Lametta is an abstract acousmatic work that explores musical applications of convolution and time-compression techniques. Sequences of broadband impulses are convolved with pitched sounds to create percussive or bell-like timbres. Longer field recordings are time-compressed with high overlap settings to produce incomprehensible vocal passages which are then convolved with a predetermined series of chords. Overall, the intended effect is to create a composition that emphasises rhythm and pitch. The choice of timbres and soundscapes in the piece reflect my interpretation of the contrasting Italian and English meanings of the title.

Torrid Mix: feat. Jazzy King and Master L.T.
"Kai estin au mousike peri harmonian kai rythmon eroticon epistime..." (And music, in turn, is knowledge of harmony and rhythm of love) PLATO

Under the Sea
This piece is inspired by my childhood dream about an adventure under the sea. In this piece, sound samples from piano, glasses, and a computer keyboard are transformed through convolution, ring modulation, time stretching techniques to represent the imagined soundscape of a submarine and waves. The piece is also intended to portray the shimmering scenes under the sea when an imagined submarine passes through, flashing the light around for

illumination. Reverberation effects are used in this piece to give the impression of mystery, and the sudden surge of textural density and velocity is also used several times to create different surprises in this adventure. The piece ends with a fade-out drone to represent the continuation of the journey toward more adventures under the sea.

Secret Pulse

SECRET PULSE (2004) for flute, violin, cello and computer-generated sounds was commissioned by NeXT Ens and neoPhonia. This composition continues a series of works written over the last ten years that explore the application of magic squares to musical structure. The 5x5 "Magic Square of Mars" provides the framework for the composition. The computer part was produced using GACSS (Genetic Algorithms in Composition and Sound Synthesis) which is an original computer music software package developed by Benjamin Grosser at the Beckman Institute of the University of Illinois. I would like to thank David Bohn and Cyrus Pireh for their assistance in preparing the score and computer part.

Circles and Rounds

Circles and Rounds explores a variety of shapes, paths and processes that are circular nature. The piece is in four sections of roughly equal length. All images were created with Maxon Cinema 4D, while the music uses a variety of sources.

Erwin's Playground

The name of this work is an allusion to Erwin Schröedinger - one of the pioneers of quantum mechanics - and his imaginary field of action; namely, the inner shells of the atom. Its musical material and its structure arise from the solutions and implications of an equation discovered by Schröedinger, which became a well known cornerstone of Quantum Mechanics and succeeded in explaining for the first time the structure of the Periodic Table of Elements. The structure of Erwin's Playground is modelled on a survey through various atomic energy levels, or shells, predicted by the equation: it begins at the lowest energy level, leaps to higher shells as this energy increases, reaches a maximum and then descends back, decreasing its energy until it reaches the lowest shell again. This may also be viewed as an excursion through the Periodic Table of Elements according to ascending order of atomic number, followed by a corresponding descent. The sonic material was generated by applying the probability distributions obtained from Schröedinger's equation to granular techniques, which are ideally suited for stochastic processing of musical material. According to Schröedinger's equation, there are four possible types of energy shells found in the Periodic Table, labelled S, P, D and F. In Erwin's Playground, these are differentiated by means of two main strategies. The first of these consists of using source sounds with common timbral attributes for each shell. The second strategy consists of the use of different grain attributes for different sections (e.g. duration, envelope,

spatialisation, using different distributions to generate amplitude and duration, etc.). The composer is grateful to the Arts and Humanities Research Board (AHRB), UK, for its support in the form of a Research Leave Award, which made possible the realization of the project leading to the composition of this work. Erwin's Playground was created with public domain software developed by the composer in order to enable the application of Schröedinger's equation to the generation of granular clouds. It was a finalist at the Bourges International competition and at the International Contemporary Music Contest "Città di Udine".

Substitute Judgment + Metal Catalogue

Jeffrey Trevino's piece, Substitute Judgment, is an autonomous work, created for performance without video. The goal of Ross Karre's video, Metal Catalog, is to create an entirely new piece that utilizes the hybrid of both media, live percussion and video. The concept for the video is derived from the concept of Substitute Judgment's form (several overlapping, interrupting narratives that unfold simultaneously). Hyper-simultaneity guides the temporal construction of the imagery. A sectionalized formal structure, consisting of four seemingly disjunct cells of musical materials, are represented graphically by a catalog of metal objects. Comprised entirely of still photographs taken on a one hundred and fifty year old horse ranch in Aspen, Colorado [the "T-Lazy-7"], Metal Catalog displays these stills in motion through a variety of graphic manipulations. First, a moving collage appears as a backdrop for overlaid images whose perspective is twisted and turned in response to the resonance of the tam tam. Following, the surprise introduction of a mechanical drum groove is represented with shifting and fading colored pencil drawings of the photographs. The materials gain more clarity in the next section when the twisting images are transferred to a single-layered unity on the screen. At the entrance of the penetrating wood block, the audience flips quickly through the pages of the catalog while the sound of glass bottles evoke memories of images as they pass quickly by, twisting in and out of sight. The music and video permute these previous materials. Finally, a choice is made: The glass bottle remains as the decisive final sonic element, resting uneasily on the resonance of the tam tam and the fading imagery of the metal collage.

Juggernaut

Juggernaut (2005) is the third composition written with the computer-assisted system, MSC, which generates music employing magic squares as compositional models. A magic square consists of a series of numbers arranged so that the sum of each row, column and diagonal is the same amount. The magic square incorporated in Juggernaut is the "magic square of the Sun" one of the Ptolemaic Magic Squares" in De Occulta Philosophia, a book on magic by Heinrich Cornelius Agrippa von Nettesheim published in 1531.

Concert XV **Dixon Hall**
11:00 AM **Saturday, November 11, 2006**

Tranquility — Kyong Mee Choi (USA)
07:00
for tape

Bell Plates — Scott Lindroth (USA)
09:00
for percussion and tape

temporal — Orlando Garcia (USA)
07:59
for tape

The President Has His Photograph Taken — David Bithell (USA)
13:50
for trumpet and video

Catjak — Lydia Ayers (Hong Kong)
04:21
for tape

Papyrus — Chikashi Miyama (Switzerland)
09:14
for a sheet of paper
Ensemble Surplus

Engram — Mei-Ling Lee (USA)
06:55
for tape

Tranquility
This piece is inspired by the image of a tranquil pond at dawn. It starts with mystic and hazy scenery of the pond represented by a relatively wet sound. Gradually, dry and more transparent sonic material is introduced. While the essence of the piece, tranquility, is presented, subtle tension is still achieved through dynamics and articulations of sonic gestures. The majority of sound samples are processed by CLM (Common Lisp Music); utilizing instruments such as expandn, grani, expsrc, ring-modulate, vkey, fullmix, and nrev.lisp.

Bell Plates
Bell Plates is scored for percussion solo and electronic sounds. The soloist plays brake drums, aluminum pipes, woodblocks, bongos, tom toms, and suspended cymbals. The electronic part consists of samples of various drums, cymbals, and gongs. These are heard at the beginning of the piece in their original form. Later, these instruments are processed in Csound to resemble a variety of gongs and bells.

temporal
temporal was completed in January of 2006 for performances at festivals in Europe in the spring and summer of the same year. The work was created by making samples of the sound of air as it reverberated inside of three wind instruments; namely a flute, clarinet, and alto saxophone. These samples were then mixed and processed using a variety of software in the composer's computer. The title of the work refers to the slowly unfolding nature of the work and the resulting distortion of the perception of time. In addition, it refers to the Spanish term used to refer to some of the strong tropical storms found in the Caribbean.

The President Has His Photograph Taken
The President Has His Photograph Taken -- for Trumpet, Video, and Electronic Sound (2005) This piece takes its title and loose inspiration from the 1928 Kurt Weill opera "Der Zar lässt sich Photographieren", in which a monarch with a slightly different title than mine goes about his self-absorbed ways having his photograph taken -- oblivious to a terrorist plot against his life. I was interested in creating a piece that deals with illusion on multiple levels and that replicates the very private mental world that we create when we think we are alone (itself a kind of illusion). Beyond this, the piece should explain itself.

Catjak
Catjak weaves noises from cats performing various activities, samples of opening a can of cat food, and samples of monkeys and birds into rhythms of

sampled sound effects of the words "cats," "dog," "meow," and so on from various performers including the Beatles, into a soundscape very loosely inspired by the Indonesian Kecak (monkey chant). Each of my students recorded one sample of the sound "cat" and several other sounds which I used in this catcaphony.

Papyrus

In this piece, a percussionist plays only a sheet of paper in various ways (e.g. tapping, flipping, flapping, blowing, rubbing, crushing, tearing etc.) and imitates noise from the paper, employing his/her throat and mouth. Not only these sound but also the movements of the player are precisely written in the score. The composer tried to compose not only sound but also visual or theatrical aspect of the piece. The electronic part is realized on Max/MSP. The program records various sound from a paper in realtime and analyzes rhythms in it. after that, it generates new phrases based on these rhythms, employing Markov chain algorithm.

Engram

Engram was realized in Kyma and Pro Tools. Source audio is from the installation project Tracer by Jefferson Goolsby and Reza Safavi. The piece opens with the reworked sound of a car being destroyed by sledgehammers, which—like the car—gradually disintegrates piece by piece. Eventually, the horn of a passing car, captured during the original destruction, becomes the dominant figure. Engram represents a journey, using as its source the sound of transportation being destroyed. The opening sounds occur as might a vivid experience in one’s life, whether terrifying, sorrowful, or joyous. We process the experience and it moves into memory. But as with any powerful experience, it may return to the front of our consciousness of its own volition, tranformed. en·gram (ngrm)?n : a physical alteration thought to occur in living neural tissue in response to stimuli, posited as an explanation for memory.

Concert XVI **McAllister Auditorium**
1:30 PM **Saturday, November 11, 2006**

Plundergraphic — Mark Applebaum (USA)
04:40
for four instrumentalists, diffusion artist, and DSP coordinators
Guys W/ Big Cars

transport — James Brody (USA)
06:16
for tape

Introduction and Allegro — Eric Lyon (UK)
17:00
for flute, violin, cello, percussion, piano, and laptop computer
NeXT Ens

NINTH — Javier Garavaglia (UK)
12:10
for viola and tape

Multiplication Virtuelle — Mei-Fang Lin (USA)
11:00
for percussion and computer
Ensemble Surplus

I understand, sort of — Brian Willkie (USA)
07:30
for saxophone and tape
Sheri Oyan, saxophone

Saturations III-C — J. Anthony Allen (USA)
04:09
for tape and dance
Newcomb Dance Company, dance; Barabara Hayley, choreography

Consort for One — Kristina Wolfe (USA)
05:42
for tenor viola da Gamba and Max/MSP
dance, Newcomb Dance Company; choreography Alice Pascal Escher

The Firmament — Hyejung Yoon (Korea)
06:25
for bassoon and computer
Category 5

Plundergraphic
"Plundergraphic" is a work for one or more amplified acoustic instruments with live electronics, 8-channel tape, and live sound diffusion. Its graphic score consists of five "leaves", each a warped visual collage of graphic images taken from scores to my own acoustic works. Like any piece, each player makes his or her own interpretation of the score; in this work, however, the instructions are deliberately vague and the notation unconventional. Furthermore, players are free to choose any number of leaves and arrange them in any order. Once chosen, the selected leaves are scaled to the duration of the work: five minutes. Meanwhile, another performer actively diffuses the tape portion, itself consisting of two quartets of acoustic instruments and two corresponding, electronically modified versions. This player is free to fade in and out among the program materials, creating sparese or dense performances as desired. Furthermore, he or she controls the amplification level of the live acoustic instrument(s) and the corresponding live signal processing which is applied to them. In this regard, the diffuser is equally a part of the ensemble, perhaps its key player. Thanks to the ensemble Guys W/ Big Cars--Stephen Beck and his colleagues and students at the LSU School of Music--for undertaking the performance of "Plundergraphic" at ICMC. The performers are: - Stephen David Beck, shofar - Griffin Campbell, alto saxophone - Brett Dietz, percussion - Mark Applebaum, piano - Joseph Patrick and Brian Willkie, sound engineers.

transport
Transport, (2004), a work for two channel electroacoustic sounds, was initially meant to be a study of sounds from trucks. Live recordings were made at the side of highways, and from the cab of a semi truck. As is the case with many of these kinds of works, the scope of the sounds grew quickly to include percussion and other natural and instrumental sources. Additionally, after attending a session of the Composer's Collective in St. Paul, Minnesota, organized by Franz Kamin and, unfortunately, no longer meeting, I was impressed with the level of music brought to the session and with the level of criticism and care which each member took when approaching the music of other members. I decided, then, that I would send Transport to the group and get their feedback at each stage of its composition. I believe I sent the work to them three or four times and incorporated many of their suggestions into the work. Many software programs were used to alter the sound material, including KymaX, Cecilia, CrusherX and many other plug-ins focusing especially on convolution, granulation, filtering and morphing. The final multi-track creation of the composition was done with Adobe Audition. The work is meant to be approached as an independent sound world, intended to be perceived and experienced on its own.

Introduction and Allegro

Introduction and Allegro is a chamber music composition in which the computer musician performs as an integral member of the ensemble. A division of labor among the instruments is observed, though the acoustic instrumentalists tend to work more as an ensemble than as soloists. The computer, by nature of its differences does take on some prominence, just as does a piano in a traditional piano quintet. Thus in addition to ensemble playing, the computer does perform occasional solos. Introduction and Allegro emphasizes the reconfigurable nature of the computer, and its ability to refine, redesign, and reflect on recorded materials. All sounds produced by the computer are derived from acoustic instrumental sounds captured during the performance. A somewhat simplified harmonic and rhythmic language is employed throughout in order to focus attention on aspects of coordination between the computer musician and other performers during ensemble playing.

NINTH

Ninth is a piece in which only one instrument and computer interact. The materials for this piece (sounds, rhythms and pitches) were taken from Bruckner's ninth Symphony in D minor (third movement - Adagio). The composition for the viola part was worked with advanced techniques and mostly all the pitches are played as flageolet (natural harmonics) sounds. The computer part (programmed with MAX - MSP) has several subpatches, using processes like filtering, Sample & Hold (triggered by the amplitude of the input from the viola), convolution, dynamic delays and AM (all interacting with each other). There are two samples stored in the computer, which are originally taken from the F# dominant chord on bar 17 of the general score of the Symphony, which interact with the viola and the patches. They were previously modified with Phase Vocoding (time stretching treatment) and slightly varying in the pitch. The form of the piece, like Bruckner's Adagio, is in a ABAB like-form with a Coda. The title "Ninth" recalls not only Bruckner's Symphony, but also the initial interval of its third movement (a minor ninth). The main aim of the piece was to "recreate" with a completely different approach and Instrumentarium Bruckner's dramaturgy of sublime spirituality in the Adagio of the Symphony in D minor.

Multiplication Virtuelle

The main idea for the piece is to have the percussion instruments multiplied by sample sounds triggered in real time by the percussion itself. Thus the electronic part acts more like an agent that doubles (or multiplies) the percussion, rather than just as an accompaniment. Object “Bonk” written by Miller Pucket in the Max/MSP environment is used to capture the percussion attacks in real time. The information about the intensity of the attacks is then used to trigger and control the playback rate of the stored samples. In another words, the pitch of the sample is determined by how loud the percussionist plays. The secondary idea of the piece has a different take on the meaning of its title “Multiplication Virtuelle”. As already implied by the setup of the

instruments on the stage, the idea of circular motion and of repeated patterns come into play not only in the surface material but also in the more global structure of the piece itself. Specific rhythmic patterns are repeated (or multiplied several times in a more visual sense) before moving on to the new but related patterns. The local structure of the piece also proceeds in a circular motion in terms of how its rhythmic patterns evolve.

I understand, sort of

I understand, sort of, a work for Alto Saxophone and digital media, was written in 2003. The primary source materials of the digital part come from an anvil hit and a saxophone multiphonic. While the work attempts to resolve the inherent conflict of its parts, the title acknowledges a limitation all of us face; an incomplete understanding of the world around us.

Saturations III-C

The Saturations series of pieces all focus on a very narrow "subject" and, similar to photography, saturates it with as much of the subject as is aesthetically desired. Saturations III-C uses samples made on the UPIC (Unité Polyagogique Informatique du CEMAMu) system while studying at CCMIX (Centre de Création Musicale Iannis Xenakis) in Paris, France. Unlike any of my other Saturations pieces, this piece uses one additional sample - a single strum of an acoustic guitar.

Consort for One

The composition Consort for One is written for live electronics and the Viola da Gamba. Its title, Consort for One is significant for the most obvious reason being the paradox of a solo consort, or group of instruments. This solo ‘ensemble’ is created by recording live material, then replaying, rerecording and reacting to that material to mimic the ethereal homogeneous sound of a Viol Consort. Within the piece there are two planned sections, but the rest of the composition is based on the performer’s improvisations, the performance space, and his or her settings on the effects. It was programmed in Max/MSP.

The Firmament

The Firmament describes the images based on Genesis chapter 1 verses from 6 to 8. The flow of “time and water” and images of “the sky and the universe” are featured in bassoon and live-electronics transformed by Max/MSP. Bassoon and real time processing granular sounds are interactively joined together in the piece. The granular sounds are designated as following three groups; main grain-sound, popping grain-sound, and low grain-sound. The grained sounds represent diverse flows of fluids.

Concert XVII **Dixon Hall**
8:00 PM **Saturday, November 11, 2006**

Transparent Body — Dan Trueman (USA)
11:48

for dancers, e-violin, laptop computer, and hemispherical speakers
Rebecca Lazier, dance; Dan Trueman electronics

Spider — Howard Kenty (USA)
02:44

for tape

Keeping the Core Pure: In Memory of Jerry Hunt — Rodney Waschka II (USA)
10:00

for laptop computer and instruments
Convolution Brothers

HOPPER CONFESSIONS: Room in Brooklyn — Butch Rovan (USA)
13:00

for cello and video
Ulrich Maiss, cello

Purusha-Prakrti — Manuel Rocha Iturbide (Mexico)
12:30

for tape

Reminiscence of Pipa — Yu-Chung Tseng (Taiwan)
10:45

for flute, percussion, and tape
NeXT Ens

This too shall pass... — Jacob Rundall (USA)
06:24

for tape

O Superman — Joshua Clausen
08:00

for video and computer

Transparent Body
The title Transparent Body evolved from two driving creative questions: What is seen in the body, and being a duet, what is perceived when two bodies surround each other but never touch, or touch and never see one another? The dance vocabulary was developed by imagining impossible movement, as defined by the laws of gravity, and then creating living, and possible, correlations in our bodies. We constructed phrases through a process I call the "twisted cube scale," where a system of points in space must be arrived at, but the sequence, initiation, and pathways are chosen intuitively. Interweaving these analytical and intuitive processes provided the framework for discovering the personal and mythic metaphors of the dance. Trueman observed the contrasting moods of the physical vocabulary and created dream sequences that alternate with more noisy, frenetic sections. The rise and fall in our bodies inspired the opening sonic gesture, and the physicality of the dance segments correspond directly to Trueman's physical movements that translate into sound gestures through the use of movement sensors on the bow. All of the sounds in Transparent Body begin with the violin, the violin bow itself, or the voice, and are processed through a laptop. The types of processing are controlled through sensors in the bow that detect pressure, movement and sound. Together we experimented with sequencing until the mostly abstract vocabulary was infused with an emotional logic and a fluid narrative thread. Transparent Body exposes a gestural language that is expressed sonically and physically, and charts the emotional landscape of two bodies that are at once united and separate. Notes by Rebecca Lazier, choreographer and director, Terrain Dance Company.

Spider
I began this piece by experimenting with a number of Physical Modeling commands in CSound (based on models by Perry Cook) that allow the user to stretch, shape, and bend the parameters of virtual instruments beyond what would be possible in the physical world. Virtual flutes, clarinets, brass, and shakers can do quite a lot when manipulated in improbable ways; the resulting sounds occasionally resembled those of their physical counterparts, but more often than not were very abstracted. I found the process fascinating, as the modeled sounds that I began creating were definitively electronic, but strangely organic, almost arachnoid: furtive, surprising, and dangerous. For each virtual model that I worked with, I created a number of samples, each with several different variations. After compiling the source material, I sequenced the wave files in Cakewalk's Sonar, with very minimal processing. The piece is succinct by design, grouped into eight overlapping sections that represent the appendages of its subject. Personally, I still find the piece a little scary, suggestive of a sudden yet anticipated predatory strike.

Keeping the Core Pure: In Memory of Jerry Hunt

Jerry Hunt (1943-1993) was an extraordinary composer-performer of powerful, frightening, humorous, and delightful computer music. His sudden death has left the general music world much poorer and the computer music world bereft of one of its few truly unique and eccentric voices. His one-man performances in which he spoke, played keyboards, banged on suitcases, made obscure adjustments to various computers, raced back and forth across the stage with strangely-lit objects in hand ritualistically presenting homemade icons, or continually gesturing with tiny flashlights, tree branches, or feathers -- becoming in the process a modern-day shaman conjuring spirits -- marked him as a brilliant and original master of technology, performance, and composition. Keeping the Core Pure is an homage that uses quotations from conversations I had with Jerry, quotations from an interview of Jerry by Larry Austin (used by kind permission of Prof. Austin), and comments made by a critic. These sentences and the length and structure of the other musical events were organized using a computer program written by the composer making use of a "1/f-noise" distribution.

HOPPER CONFESSIONS: Room in Brooklyn

This multimedia work draws its inspiration from “Room in Brooklyn,” a poem by Anne Carson (New York: Knopf, 2000). Carson’s poem is polyphonic, exposing two different voices that speak to the condition of passing time: a painting by Edward Hopper (the 1932 “Room in Brooklyn”) and a passage from St. Augustine’s Confessions. Carson’s minimalist verse suggests a unique nostalgia—the voice of the poem is vaguely jazzy, although, like a Hopper painting, it never swings; the form is too empty to sustain that kind of movement. It is this very reticence that serves, paradoxically, to animate the painting, as if Carson were giving voice to the solitary figure who sits with her back turned from the viewer, re-enacting the time present that for her “is long,” and, for the spectator, “is no more,” to use Augustine’s terms. The present work adds another voice to Carson’s polyphonic poem, through an acoustic and visual landscape that not only animates her animation, but explores, in its own way, the nostalgia Hopper embraced and Augustine bracketed. Mixing new and old images, photograph and canvas, still life and movement, the visuals offer a double-take on Hopper’s interiors. The musical score represents a similar fusion of perspectives, through a series of discrete phrases that shift between skittish walking bass and mournful cantabile melody, mediated by the electronic interaction. Two temporal orders are bridged through the sound and the function of this electronic voice, which both binds and separates what is now and what is no more.

Purusha-Prakrti

Purusha-Prakrti Samkhya is one of the philosophical schools of India, known as one of the oldest and most orthodox systems of Hinduism. This philosophy sees the universe as part of two eternal qualities: purusha & prakrti. It is then a dualistic philosophy characterized by a way to see life that contemplates the

universe as an evolution of different dualities (light-darkness, masculine-feminine, etc). Spirit as an autonomous transcendent principle is accepted by all Hindi philosophies, with the exception of Buddhists and materialists. The purusha (spirit-self) is unexplainable; it is the one that sees, isolated, indifferent, simple inactive spectator, pure and eternal. Then, how can the spirit accept being accompanied by one's psycho mental experience?. In the Samkhya School, purusha is always tied to prakrti (matter and psycho mental life), and this tie to the self and life is to be found out of time. The only certainty that we can have is that man has been in this condition since antiquity. Prakrti is so real and eternal as purusha, but compared to the spirit it's totally dynamic and creative. The self will be captive of the body while the purusha is mistaken by it. The spirit can be liberated (moksha) when it realizes that it is different from psychic matter, and certain millenary practices like Yoga have been able to develop techniques in order to arrive at this liberation. At the present, people in India that believe in Hinduism (most of them) accept the doctrine of Karma that stipulates that each individual obtains the results of his good or bad actions through an eternal cycle of life's (samsara). They believe that this cycle of suffering can be only detained through the spiritual practice of Yoga, or by attaining death in the sacred town of Varanasi. This composition is about an imaginary trip that begins in the high mountains where the Ganga River begins and where the Yogis perform their spiritual practice, and it ends at Benares (Varanasi). The work is inspired in the dualistic conflict between spirit and matter that repeats till infinitum in the eternal wheel of samsara, and in its possible way outs. The work was made starting from digital sounds recorded in two trips made to India where I recorded different sound scapes along the Ganges river (in the cities of Haridwar, Ritshikesh and Varanasi), many of them that deal with daily rituals where different kinds of bells and percussion instruments are played. In this way, sound instruments, animal life (specially insects and birds) and finally man with their diverse daily activities are the protagonists of this work that evolves as the sacred water stream of the Ganges. Purusha-Prakrti was a commission of the Bourges festival in 2005; it was made at the Charydbe studio at IMEB in Bourges France. In this composition I combine digital means as convolution and different cross synthesis techniques with a couple sounds made with analog old noise generators and oscillators. Most of the sounds were transformed starting from the digital sound scapes I recorded in India.

Reminiscence of Pipa

The work was commissioned by National Foundation of Art in Taiwan and has been selected as a finalist piece at Musica Nova 2005 International EA Music Competition. The composition was inspired by a poem –"Song of Pipa" by Gee – I PO, a Chinese poet in Tang Dynasty; the work can be viewed as a reminiscence of the story. The alto flute employed in the composition presents the poet, while the normal flute and piccolo presents the female role of the poem ;computer music and percussion parts serve as the rhythmic supporting

and atmosphere creators of the work. For reflecting the oriental trait of the poem, several eastern musical elements and instrumental idioms are employed including the thematic principle of embellishing a single note(as manifested in Chinese Chin music and Indian Gamakas music), the treating a single tone as "living matter" with different vibratos and timbres(as manifested in Chinese Chin music), and the rapid alternation of fingering and dynamics(as used in the Japanese Shakuhachi music),the use of digitized samples of Chinese music. ..etc. The form of the work can be divided into 4 sections with long-static introduction and coda. The overall shape of the work is close to a ascending ramp, starting from a more static , lower one and growing gradually, and leading ,finally, toward the highest, climax point at 5th section . The formal outlines of the work is as following: I. Introduction, II. Farewell , III. Loneliness and birds, IV. Bitterness and Sadness, V. Dancing with drunk, VI. Coda

This too shall pass...

This too shall pass... is based on two recorded sound sources: a bell and a cymbal. The spectra of these sounds were analyzed using Michael Klingbeil's SPEAR (Sinusoidal Partial Editing Analysis and Resynthesis) program. I then manipulated the spectral data using Common Music and synthesized the piece in CLM. As suggested by the title, This too shall pass... is about the acknowledgment of adversity as well as the belief that all things must come to an end. The piece is not so much about optimism as it is about acceptance.

O Superman

This multi-media performance is a re-envisioning of Lori Anderson's O Superman. This song, highly relevant in the 80's for blurring the boundaries between pop, performance art and innovative electronic performance, is updated to feature new novel electronic performance interfaces and to engage an entirely new electronic vernacular.

The Late Night Concert program this year also known as the off-ICMC events is a collaboration between ffmup (Free_Form_MashUp, www.ffmup.org) and ICMC 2006. The main figures at ffmup Scott Smallwood and Newton Armstrong along with Sam Pluta, a graduate student at Columbia University selected the works that are presented at various locations in New Orleans including the historic Columns Hotel on St. Charles Avenue and the French Quarter. We hope that these concert series with all live performances will present yet another aspect of the multidimensional depth of our field during the conference in New Orleans.

Concert Locations

Columns Hotel
The Columns Hotel is part of the ICMC recommended hotels on St. Charles Avenue. It is located accroess the street towards Tulane University and about 2 minute walk from Hampton Inn and St. Charles Inn which are also part of the list of ICMC hotels. Please see Local Information page and section on hotel maps for directions.

Sound Café
The Sound Café is located in the French Quarter area. The Late Night Concert will be held after the banquet and we will provide transportation to the venue or back to the ICMC hotels. Please see Local Information page and section on Late Night Concerts location maps for directions.

Zeitgeist
Zeitgeist is a multi-disciplinary art center run by Rene Broussard. It features multi-disciplinary art works including music as well as video. The Friday Late Night Concert will be held here. Please see Local Information page and section on Late Night Concerts location maps for directions.

Pink Canoes

Pink Canoes (USA)
30:00

Andre Castro + Martin Aaserud

Martin Aaserud (Norway)
30:00

Pink Canoes
The Pink Canoes are an improvisation-oriented new music ensemble from Oakland, Ca. Their vocabulary is as varied as the instruments they play, ranging from prepared guitars, to laptops to homebuilt analog synthesizers and circuit bent electronic toys. At times the integration between electronics and instruments is seamless, leading to moments where not even the musicians themselves can tell who is creating what sounds. Other times, such integration is completely absent as electronics and instruments provide all too disjunctive splatterings of electronic noise against a simultaneously beautiful, yet terrifying soundscape. Sometimes the two aforementioned scenarios occur just seconds apart from each other, adding even greater confusion as to the true underlying themes and destination of each performance. The Pink Canoes are, in no particular order, Aram Shelton (saxophones, laptop) Noah Phillips (guitar, electronics), Ava Mendoza (guitar, electronics), Travis Johns (bass, laptop and electronics) and Zachary Watkins (electronics).

Andre Castro + Martin Aaserud
Improvisations based on abstract sound, focusing on timbre and texture more than tonality. Andre Castro is using Max/MSP to livesample and process sounds coming from Martin Aaseruds prepared guitar. The only source of sound is the guitar and all sound is created live. Small sounds are brought to life that would not be audible without some form of amplification. The sonic landscape is fragile, silent and temperamental as a rusty forest.

Late Night Concert *Two* **Mimi's**
9:30 PM **Wednesday, November 8, 2006**

Tappatappatappa	Jeff Morris (USA) 20:00
Jack Chorale	Paul Fretwell (UK) 45:00
Seattle Noise and Pulse Study	Hiroki Nishino (USA) 15:00

Tappatappatappa
An improvisation exploring and transforming the room's acoustics into textures and gestures of intriguing noise and pure tones. The artist works with tools designed in Max/MSP to record live input from quiet, delicate sounds and ambience, transforms them and recombines them with incoming live sound to build up chaotic but dynamic and beautiful textures and gestures.

Jack Chorale
We enjoy odd things. Musical has-beens fascinate us just as much as contemporary genres. JacK Chorale brings you to the cinema of the late 1970s. A bad Sci-Fi B-movie is play but you're not really playing attention. Our track is tinged with reminiscence, amazingly bad effects, electronica and any feelings you might have had whilst watching this in the not-quite back-row of the Dalston Rio on a humid summer afternoon. Music is allowed to mean something, isn't it? JacK Chorale ends up as a work-song for the lazy. If you really care, you are welcome to show your appreciation by feeling the depth (and width) or our funky groove. Music and sounds from earlier times push their way into the mix – it's all music, right? We like grit and harmony, so this track has both. Two facts for your narrative: The Dalston Rio is a little-visited cinema in London's east end, adjacent to a Bagel Shop where drivers pull up to order bakery products in old white BMW cars with blacked-out windows. Bach is known to have written Chorales. Jack didn't. Perhaps Jack ranched horses 'out Midwest' instead. Jack Chorale is mixed live using laptop technology. Besides this, we need a mixing desk and stereo system for the playback of our work – the social environment of a bar or club is the ideal venue. We require no frills, although we always welcome a system that has a nicely balanced top end and a hefty bottom.

Seattle Noise and Pulse Study
Seattle Noise and Pulse Study is a live performance piece based on the recordings I took from my everyday life as a Ph.D. student, in the style of loud noise music.

ilgob sorigori — Ge-Suk Yeo (Germany)
49:42

backgammon — Farina Casey (USA)
45:00

(The New) Ur Sonata — Shahrokh Yadegari (USA), Steven Schick (USA)
17:08

ilgob sorigori
ilgob sorigori is a cycle of seven sound poems combined with electro-acoustic sounds and a video projection. The music is based on onomatopoetic words, the basis of rhythms and timbre. The words are spoken in different languages, which encounter at different moments. This helps to form exciting rhythms and sounds. Consonant and syllables emanate from language, but they sound like instruments, often not clear to understand. The listener himself may decide which meaning he likes to give the sounds. This forms a world of sound, which transforms into pictorial music. 'sorigori' can be translated with sound loop, which joins over and over, more and more. One scene is followed by another, at the end the last scene returns to the theme of the first, slightly changed, though, in a variation with different character. It's not about the return to the beginning, but about enhancements and change: a spiral and endless process. ilogb sorigori is the result of an intense sound work with digital sampling as well as with Flash programming and video art. Nevertheless, its focus is not based on technique, but on the amazing forms of expression these technique opens. ilgob sorigori can be considered as a surrealistic radio drama or minimalistic opera with slowly moving visuals based on sound calligraphies (original painted with brush and ink).

backGammon
backGammon is a large ensemble devoted to the exploration of group composition through both electronic and acoustic media with a desire to test the boundaries of improvisational transmission. The ensemble consists of seven electro-acoustic multi-instrumentalists, all using electronic tools to process and distribute their own sonic contributions as well as those of the group. The group of musicians also engages the historical continuum of electronic music by using tools from the dawn electronic music, such as the Arp Odyssey, spring reverb, and theremin, as well as more contemporary tools such as laptops, gestural controllers, and Max/MSP. The primary goal of the ensemble is group composition via musical communication. The music itself is about exploring the many dimensions of modern music making: sonic textures, complex rhythmic structures, and exploring a vast array of musical idioms and languages.

(The New) Ur Sonata
(The New) UrSonata A Duo Collaboration between a Percussionist/Actor and a Computer Musician A Collaborative Protocol When Kurt Schwitters composed his mammoth 45 minute long "UrSonata" between 1922 and 1932 -- a work he called his "sonata in primal sounds" -- he succeeded in de-coupling words from their meanings. His UrSonata is indeed primal, celebrating the human voice not as a purveyor of meaning through the medium of language

but as a progenitor of pure sound that is unadulterated by meaning. When words arise, they seem to do so almost accidentally: there is a _playful_ use of "Rakete," German for rocket, or a brief reading of the word "Dresden" from the inside out ("dedesnr"). Schwitters must have thought he was alone in the exploration of sound for its own sake. He could not have known in 1922 that two great concerns of 20th century music -- percussion and electronics -- would follow the same path. "(The New) UrSonata" reconsiders Schwitter's original work through the lens of late 20th century sound art, in which a percussionist/actor and a computer musician rethink Schwitter's sound play. New versions of old ideas emerge through a focus on rhythm, sound manipulation, and spatialization. The computer music instrument used in this recording for live improvisation is called Lila. "Lila" is the Sanskrit word signifying divine play, the play of destruction and creation, or the play of presence in the moment. With that metaphoric platform in mind, the material that Lila manipulates is carefully chosen. Schwitters offers a spectrum of sonic information from the neutral matrix of the alphabet at one end, to charged repetitions of words of war (Rakete being primary among them) on the other. "(The New) Ursonata" allows the alphabetic buildings blocks of Schwitters' poem to stand alone while pulling emotionally charged elements into the public space by means of four-channel spatialization and manipulation based on simple analog processes (e.g., loop, delay, ring modulation, and feedback). These parameters are controlled precisely by performative action. The audience then experiences the most emotionally relevant parts of Schwitters' work as movements and sounds that occupy their domain. Performance becomes, as Schwitters always intended, an expression of action and provocation.

Late Night Concert *Four* **Columns Hotel**
10:30 PM **Friday, November 10, 2006**

Rise Set Twilight — Michael Bullock (USA)
30:00

aDemod Media Jam — Shawn Pinchbeck (Canada)
35:00

Call Me Hear — Don Sinclair (Canada), Jeremy Rotsztain (Canada)
20:00

Rise Set Twilight
rise set twilight is the sound and light project of Linda Aubry and Mike Bullock. Layering audio and video synthesis, feedback, and field recordings, rise set twilight creates absorptive drones that can be both gritty and crystalline. Performances typically last around 30 minutes and take advantage and unusual spaces: rise set twilight have performed in church pews and in a planetarium, and projected onto the ceiling of a monastery. Recognizable sounds and images float just below the surface but the cumulative effect is abstract and meditative. Change happens gradually, almost imperceptibly.

aDemod Media Jam
The aDemod Media Jam will be a 35 minute live sound and visual experience that brings together the elements of acousmatic electroacoustic music/soundscapes, film, video, computer generated images, live image constructions and interactivity. A dynamic and free flowing live performance environment is created where the sound and images feed off of each other. The result is a gritty hands-on kind of media experience where through the spirit of collaboration the performers create a new space where new and old medias converge to clearly express their artistic sensibilities.

Call Me Hear
In this tightly synchronized and participative audio-video performance, Don Sinclair and Jeremy Rotsztain collect cell-phone images submitted by members of the audience, compose them into a collage, and transform/sonify that collage into a sonic scape of abstract sounds. This system for interaction between cell-phone networks to Internet to video to audio was conceived and created by Don and Jeremy in Max/MSP/Jitter. The performance system explicitly invites members of the audience to submit images, regularly checks for new images, and downloads them onto Don's computer. Don composes a visual collage using the collection of images using a MIDI wind instrument, layering images with each another and selecting visual effects in real-time. As Don is creating his collage, Jeremy simultaneously reads a single 320-pixel scan line from Don's collage and interprets it as an FFT spectrum to create an evolving soundscape. Brightness is used to control the amplitude and hue is used to control phase. Bright pixels in the top of the image are transformed into loud sounds in the upper sonic spectrum (10,000 to 20,000 Hz). Bright pixels on the lower half of the image are transformed into sounds in the lower spectrum (400 to 10,000 Hz). By reading through Don's changing collage by manipulating the scan line across the screen in different ways, Jeremy is able to play the collage thereby producing a variety of rhythms and timbres. If a second projector is available, Jeremy’s scan line can be projected on the second projector. The performance system is designed to provide the two

performers a great degree of creative control over both the sonic and the visual while at the same time, keeping the performers intimately connected during the process. Don's use of the wind controller affords him the ability to create the collage while observing the position and movement of the scan line and hearing its sonification. Jeremy performs the scan line on the image collage, controls the position and movement of the scan line, adjust the sonification parameters, and has the scan line projected (if available). Call Me Hear was performed at Windows on Fine Arts Cultural Studies (part of Accolade opening events March 2006) and I/O Media at Interaccess Media Art Centre (April 2006).

Installation Program

We have a number of installations for this year's conference set up at various locations on the Uptown Tulane University campus. The venues include Rogers Chapel, Dixon Hall Lobby, McAllister Auditorium Lobby, and the McAllister Lecture rooms.

Locations for Installations

Rogers Chapel
The Rogers Chapel is located next to the Theater and Dance Department building, the Music Department's neighbor, going towards Broadway Street. Please refer to the campus map in the Local Information section to locate Rogers Chapel.

Dixon Hall Lobby
The Dixon Hall Lobby is located in Dixon Hall where the morning and evening concerts are held. Please refer to the general campus map to locate Dixon Hall in the Local Information section.

McAllister Auditorium Lobby
The McAllister Auditorium Lobby is located in the lobby area of McAllister Auditorium where the afternoon concerts are held. Please refer to the campus map to locate McAllister Auditorium in the Local Information section.

Installation Schedule

Monday and Tuesday

Time	Rogers Chapel	Dixon Hall Lobby	McAllister Auditorium	
			Lobby	Lecture Rooms 1 & 2
12:00 PM	RTO	Ceramic	thunus	Kinetic Energy
5:00 PM	Orf's Immolation			GLÅS
8:00 PM				

Wednesday

Time	Rogers Chapel	Dixon Hall Lobby	McAllister Auditorium	
			Lobby	Lecture Rooms 1 & 2
12:00 PM	RTO	Ceramic	thunus	Kinetic Engine
5:00 PM	Ghost Jockey			GLÅS
6:00 PM				

Thursday to Saturday

Time	Rogers Chapel	Dixon Hall Lobby	McAllister Auditorium	
			Lobby	Lecture Rooms 1 & 2
12:00 PM	Ghost Jockey	Ceramic	thunus	Speaking of Wind
	Cheraw			Dome Works
8:00 PM				

Installation Descriptions

Radio Transmission Orchestra (RTO) **Aaron Drake**

Radio Transmission Orchestra (RTO) is a completely mobile, versatile, multi-channel sound installation. Combining pirate radio broadcast and urban guerrilla art, RTO builds on a history of free speech and performance art in a simple yet effective and innovative way. RTO is a made up of five low powered, short-range FM transmitters and thirty battery powered FM alarm clock radios. The transmission is wireless, maintains broadcast regulations set

up by the FCC, and uses audio routed by a laptop. The content sent through the airwaves consists of music and soundscapes, composed primarily by musicians, composers and sound artists, although participation has been open to all individuals interested in experimentation with sound and performative installation. So far, participating artists include: Cooper Baker, Aaron Drake, David Earle, Caleb Epps, Adam Fong, Thadeus Frazier-Reed, Stina Hanson, Clint Haycraft, Arthur Jarvinen, Joe Kidurka, Eric Lindley, Marc Nimoy, James Orsher, Phil Stearns, and Luke Taylor. RTO has already been featured at Provflux 2006 in Providence Rhode Island where performances and installations included: 1. The parking structures of the Biltmore Hotel as well as that of the Rhode Island Convention Center 2. As part of the "mobile jukebox" - attached to a 1971 Schwinn 10-speed – which toured the streets of downtown Providence 3. As an unannounced guest to the 2006 Rhode Island School of Design commencement ceremony 4. And as a one night installation at the Loom Gallery in Providence, RI.

Cermamic **Gary DiBenedetto**

The heart of Ceramic is a large hand-thrown clayware bell surrounded by five smaller ones. The hand-thrown bells may symbolize an earthier past, while their dynamic context represents incorporation into a global age of technology. The motion of the bells against one another generates unique sounds within each bell that are recorded as they occur. The contrast of the 'natural world' with the technological age is represented through the use of the computer to alter the sounds generated by the sculpture in real time. All bells rotate on their central axis; flywheels are driven by an electric motor generate their motion. The dimensions of the piece as shown, suspended within a wooden frame, are 2ft. x 2ft. x 7 ½ ft. However the top platform is ideally suspended from the ceiling, resulting in the elimination of the wood suspension frame. The sculpture is multi-functional relating to the audio environment desired. Ceramic can be presented in the following audio modes: 1. Amplified with effects or without 2. Real-time unfolding of an electroacoustic composition.

Orf's Immolation **Randall Packer**

ORF'S IMMOLATION was originally created as a site-specific performance work, presented as the closing event of Mardi Gras, New Orleans, February 28, 2006, 11:00 pm - 12:00 am CST. ORF'S IMMOLATION was performed by a solo tenor (Orf) accompanied by a mobile audio-visual system enabling video projection and sound distribution in a multimedia walkthrough of the streets of New Orleans. ORF'S IMMOLATION was executed from Washington Park in the Marigny Triangle to the St. Louis Cathedral at Jackson Square in the heart of the French Quarter. Images of the hurricane and its aftermath, drawn from broadcast news footage, were projected on the caped figure of Orf (derived from the myth of Orpheus), while he sang classic American songs (blues, jazz, and spirituals) set to an original electronic composition. ORF'S IMMOLATION confronts social and political conditions in America that led to the tragedy of Hurricane Katrina. The work underscores

the necessity of the active observer during perilous times, as Orf metaphorically ‘absorbs’ the imagery of horror and devastation of Katrina culminating in a fiery self-immolation in front of the St. Louis Cathedral. The act of immolation is intended as a symbolic gesture evoking defiance, catharsis, purification and rebirth. ORF’S IMMOLATION attempts to recover and reclaim what is sacred and what is at risk, what is fragile in the unique culture of New Orleans.

thunus **Ryoho Kobayashi**

"thunnus" is a sound and image processing system using Sudden Motion Sensor, which attempts to prevent data loss by parking the heads of an active disk drive after detecting a "sudden motion”. The user wears a head mount display (HMD) and sound isolating earphone, which isolates the user from background noise, and shoulders a backpack, in which a laptop computer. By walking, running or jumping, the Motion Sensor in the computer will send a signal to Max/MSP/Jitter using OpenSound Control (OSC), then images and sounds from a video camera, which is put on the HMD, are processed and output to HMD and earphone. When the user stands still, the image on the HMD never makes transition, and sound on the earphone will be a noise. To take information from surroundings, the user have to keep moving. The sound processing for this work is accomplished using cross synthesis techniques. The number of frequency components, which are transmitted to earphones, corresponds to the tempo of the user’s steps. Therefore, when the user moves quickly, the generated sound becomes clear.

Kinetic Engine **Arne Eigenfeldt**

Kinetic Engine is a virtual ensemble of rhythmic players under the control of a virtual conductor, who not only monitors and controls the players, but, more importantly, understands the role of each player, and creates parts accordingly. Furthermore, the conductor demands continuous change (and is thus the conductor of a continuous motion machine, a "kinetic engine"). Variation must occur: each player has the capability of varying its parts in a number of ways, ranging from small (i.e. filter settings) to medium (the pattern) to large (i.e. the instruments played). Small variations satisfy the conductor for a while, but they wear off; greater and greater variations are required to maintain interest. This demand continues to increase, until large scale changes occur. In this installation version of the system, the listener can influence the system, gently nudging it, or giving it a strong push.

GLÅS **Mark Domino**

’Glås' is a video-based installation with a robotic projectorrefractor that explores the electro-optical space created through careful mediation of contemporary video projection technology, various glass and integrated digital video processing. It is a sensual comment on light-obsessed mythologies of the present.

Ghost Jockey **Daniel Iglesia**

Ghost Jockey is an audio/video (1 channel video, stereo audio) installation which continually generates a stream of music and video. Aurally, the program repeatedly swaps samples from a library, layers and aligns them by tempo and key, and makes decisions on volume levels. It can also fragment and reassemble the loops in stochastic ways. The library contains samples from many different (primarily pop) genres, and most samples are intended to be recognizable (reflecting contemporary popular music's reliance on nostalgia). The visuals are created by running a Google image search on the name and artist of each sample, cycling through the results, and adjusting the brightness with the volume of each sample track; the result is multi-track layered images that pulse with the beats of the music. Since many of the results are recognizable or even iconic (album covers, portraits, etc), the viewer has another correlative force to tax the nostalgia center of the brain. The result is pleasing and entrancing; yet the relative each with which a computer subsumes the role of DJ and VJ is intended to comment upon the lack of originality required to create directionless or non-hierarchical collage.

Cheraw **Kristine Burns/Colby Leider**

Cheraw, South Carolina, August 2005. 24 hours distilled into 24 minutes. The work was commissioned by the State of South Carolina and Cheraw State Park.

Speaking of Wind **Seny Lee**

The installation consists of an arrangement of 12 membranes together with 12 microphones along the edges of a bridge at Centre Arts Marnay-sur-Seine. The microphones are the bridge’s ears and the membranes its vocal chords. The sounds of the bridge are interpreted in real time during variable short periods and retransmitted directly into the bridge’s sound environment. An auto-influence is put in place and the computer learns to identify new sound signals, which would enrich its sonorous mise-en-abîme (a car passing by, the whistling of a passer-by, children laughing, bird singing…). This is the first artistic work that makes use of paper-thin plastic film speaker membranes, a new macro-technology, developed by the research and development laboratory at Plasma and Ion Beam Corp, a South Korean start-up. These new membranes may look like everyday plastic film but their physical properties make them the equivalent of millions of condensers grouped together (piezoelectric film). The particularly expensive technology developed for these electrostatic loud speakers can now be found in a physical support.

Dome Works **Pauline Oliveros**

Oliveros describes Dome Works as “20ft geodesic dome covered with lycra with 360 degree projector and 12 channel surround sound system. The dome has a 400 sq ft footprint and needs 2300 sq. ft. so that there is room around the dome as well as inside it. A black box theater is best as darkness is required.” Unfortunately we will not be presenting the live version but will be projecting

the video instead.

Digital Jukebox Program

For this year's ICMC Digital Jukebox Program, which features 44 works from around the globe, we have programmed some additional special events. The 44 works can be listened to on listening stations located at Dixon Hall Lobby and McAllister Auditorium Lobby, in an 8-channel listening room and on WTUL 91.5 FM radio. The radio broadcasts will feature composers from the Digital Jukebox Program hosted by conference attendees – "composer co-hosts." Composers who have requested to be interviewed will present live performances or playback of their Digital Jukebox works along with other special guests such as keynote speaker Max Mathews and Miller Puckette throughout the week. Please refer to the conference webpage for any updates and change in schedules.

Featured Works

Air Study 1
Gary Scavone (Canada)
06:19

Alchymia
Noah Keesecker (USA)
10:00

Anatomia de um Poema Sonora
Luis Antunes Pena (Germany)
11:12

Anechoic Pulse
Panayiotis Kokoras (Greece)
09:40

Asphatherios
Phivos-Angelos Kollias (Greece)
07:37

Automatisme
Ji Won Yoon (Korea)
06:04

Black Noise White Silence
Marcel Wierckx (Netherlands)
13:50

CRESCENT CITY (excerpt)
Ann LeBaron (USA)
12:00

Deep Winter
Mark Volker (USA)
11:30

Do You Know What It Means?...
Aries Estes (USA)
07:45

Enmeshed
Michael Clarke (UK)
12:55

Hydraulis
Colby Leider (USA)
12:02

Imprints
Sinan Boskesoy (France)
07:00

Invisible Images
Burton Beerman (USA)
17:00

is the same... is not the same
Robert Hamilton (USA)
12:00

KARG
Palle Dahlstedt (UK)
11:30

La Rage
Pierre Alexandre Tremblay (UK)
45:00

Landfall II: Flaming Skull
McGregor Boyle (USA)
07:00

Lattice
Christopher Burns (USA)
00:00

Li Jiang Etude No. 3
Christopher Keyes (Switzerland)
08:00

Magic-Mirror
Johannes Schuett (UK)
12:13

Maresia
Daniel Barreiro (Germany)
11:51

Mist Covered Mountain
Jan Beran (Denmark)
14:43

Mudra
Rodrigo Sigal (Mexico)
12:28

Music for the Biceps
Joo Won Park (USA)
06:29

NPFAI.1
Dimitri Voudouris (South Africa)

offen - fin des terres
Gerald Eckert (Germany)
16:45

play day
Roberto Morales (Mexico)
12:56

SaxMax
Mark Enebretson (USA)
12:00

Shelter
Tom Williams (USA)
13:04

Singularity
Mark Ballora (UK)
11:36

stretto
Anna Rubin (USA)
26:44

Tremor Transducer
Douglas Geers (USA)
06:00

tambo
Seddon Ambrose (UK)
10:51

Tanicane Camillo)
Camillo Salazar (USA)
05:00

The Boy Kicked the Ball
Lawrence Fritts (USA)
10:00

The Fundamental Ojbect
Eric Chasalow (USA)
04:44

The Wooden Fish
Chaudhary Amar (USA)
04:30

Wrought
Fletcher Wyatt (USA)
10:43

Those Gestures You
Lars Graugaard (USA)
16:00

Tunnel
Olivia LeSeur (USA)
04:24

Untitled 2005
Travis Garrison (USA)
10:30

Whitebeard
Pete Moss (USA)
16:02

Monday, November 6, 2006 — Interview 1

3:00 PM

Luis Antunes Pena (Germany)
Ann LeBaron (USA)
Sinan Boskesoy (France)
Matthias Ockert (Germany)

Matthew Burtner (USA), co-host

Tuesday, November 7, 2006 — Interview 2

3:00 PM

Mark Volker (USA) ; Danilo Mezzadri, flute
Arles Estes (USA)
Pete Moss (USA)
Jen Wang (USA)
Max Mathews (USA)

Elainie Lillios (USA), co-host

Wednesday, November 8, 2006 — Interview 3

3:00 PM

McGregor Boyle (USA)
Christopher Burns (USA)
Jan Beran (Denmark); Christopher Raphael, oboe
Robert Hamilton (Sweden)
Miller Puckette (USA)

Jon Appleton (USA), co-host

Thursday, November 9, 2006 **Interview 4**

3:00 PM

Camillo Salazar (USA)
Doo Jin Ahn (Korea)
Rodrigo Sigal (Mexico)

David Durant (USA), co-host

Friday, November 10, 2006 **Interview 5**

3:00 PM

Tom Williams (UK)
Joo Won Park (USA)
Mark Applebaum (USA)
Chaudhary Amar (USA)

Kristine Burns (USA), co-host

Saturday, November 11, 2006 **Interview 6**

4:00 PM

Perry Cook (USA)
Charles Dodge (USA)
Marcel Wierckx (Netherlands)
Mark Ballora (USA); Danilo Mezzadri, flute

Douglas Geers (USA), co-host

Papers, Posters, Demos, and Panel Sessions

Schedules and details

for

Papers,

Posters,

demos,

and Panel Sessions

Paper Session 1 A — Diboll Conference Center Room A

Composition Systems and Techniques

9:00 AM — Generation of Complex Sound Sequences using Physical Models with Dynamical Structures
Oliver Tache, Claude Cadoz

9:30 AM — An Introduction to Eco-Structuralism
Timothy Opie, Andrew Brown

9:50 AM — Enmeshed: Live in 3D fog~
Michael Clarke

10:10 AM — Time Slices, Graphic Scores and Music Composition
Brian Evans

Paper Session 1 B — Diboll Conference Center Room B

Sound Synthesis and Analysis

9:00 AM — Waveguide-based Room Acoustics through Graphics Hardware
Niklas Roeber, Martin Spindler, Maic Masuch

9:30 AM — From Score-Based Approach Towards Real-Time Control in PWGLSynth
Mikael Laurson, Vesa Norilo, Henri Penttinen

9:50 AM — Fantasy Birds in Yazi's Dream
Lydia Ayers

10:10 AM — Raster Scanning: A New Approach to Image Sonification, Sound Visualization, Sound Analysis and Synthesis
Woon Seung Yeo, Jonathan Berger

Paper Session 2 A — Diboll Conference Center Room A

Languages for Computer Music/ Software and Hardware Systems

3:30 PM — Metamodels and Design Patterns in CSL4
Stephen Pope, Xavier Amatriain, Lance Putnam, *Jorge Castellanos, Ryan Avery*

4:00 PM — Design and Implementation of a Real-Time Fingering Detection System for Piano Performances
Takegawa Yoshinari, Terada Tsutomu, Nishio Shojiro

4:30 PM — GranCloud - A New SuperCollider Class for Real-time Granular Synthesis
Terry Lee

5:00 PM — Miniaudicle and ChucK Shell: New Interfaces for ChucK Development and Performance
Spencer Salazar, Ge Wang, Perry Cook

5:20 PM — FOMUS, a Music Notation Software Package for Computer Music Composers
David Psenicka

5:40 PM — Flexible Scheduling for DataFlow Audio Processing
George Tzanetakis, Neil Burroughs, Adam Parkin

Paper Session 2 B — Diboll Conference Center Room B

Mathematical Music Theory

3:30 PM — Functors for Music: The Rubato Composer System
Guerino Mazzola, Gerard Milmeister

4:00 PM — On Musical Scale Rationalization
Albert Graf

4:30 PM — Fourier Oracles for Computer-Aided Improvisation
Emmanuel Amiot, Thomas Noll, Moreno Andreatta, Carlos Agon

5:00 PM Melodic Clustering Within Topological Spaces of Schumann's Traumerei
Chantal Buteau

5:30 PM Melodic Topologies
Kamil Adiloglu, Klaus Obermayer

Paper Session 3 A — Diboll Conference Center Room A

Interactive Performance Systems

9:00 AM — JAMOMA - A Modular Standard for Structuring Patches in MAX
Tim Place, Trond Lossius

9:20 AM — Providing Rhythm Patterns in Sound Synthesis
Lars Graugaard

9:40 AM — The Table is The Score: An Augmented-Reality Interface for Real-Time, Tangible, Spectrographic Performance
Golan Levin

10:00 AM — Sound Scope Headphones: Controlling an Audio Mixer through Natural Movement
Masatoshi Hamanaka, Seunghee Lee

10:20 AM — Agents in ChucK: A Timely Programming Experience
Michael Spicer

Paper Session 3 B — Diboll Conference Center Room B

Sound Synthesis and Analysis

9:00 AM — Using Concatenative Synthesis for Expressive Performance in Jazz Saxophone
Esteban Maestre, Amaury Hazan, Rafael Ramirez, Alfonso Perez

9:20 AM — Estimation of Partial Parameters for Non-Stationary sinusoids
Axel Roebel

9:40 AM — YASAS - Yet Another Sound Analysis - Synthesis Method
Schlomo Dubnov

10:10 AM Timbral, Perceptual, and Statistical Attributes for Synthesized Sound
James McDermott, Niall J.L. Griffith, Michael O'Neill

Paper Session 4 A — Diboll Conference Center Room A

Representation and Models for Computer Music

3:30 PM Analysis of Musical Structures in Audio and MIDI Signals using Information Rate
Schlomo Dubnov

4:00 PM An Approach to Visualization of Complex Event Data for Generating Sonic Structures
Sinan Bokesoy, Jean Baptiste Thiebaut

4:30 PM Semantic Time: Representing Time and Temporal Transformations for Digital Audio in Interactive Computer Music Systems
Eric Lee, Jan Borchers

5:00 PM A Logic-based Language for Modeling and Verifying Musical Processes
Rafael Ramirez

5:20 PM The Interpretation of MIDI Velocity
Roger Dannenberg

Paper Session 4 B — Diboll Conference Center Room B

Aesthetics, Philosophy, and Criticism of Music/ History of Electroacoustic Music

3:30 PM The Shiraz Festival: Avant-garde Arts Performance in 1970s Iran
Robert Gluck

4:00 PM Here Me Now: The Implication and Significance of the Female Composer's Voice as Sound Source in her Electroacoustic Music
Elizabeth Hinkle-Turner

4:30 PM	Noise, Dissonance, and the Twentieth-Century Spiritual Crisis: Synchresis in Chion's Requiem *Sarah Jacobs, Paul Rudy*
5:00 PM	Sound Art in Mexico *Manuel Rocha Iturbide*
5:20 PM	Negotiating the MusicalWork: An Empirical Study on the Inter-Relation between Composition *Henrik Frisk, Stefan Ostersjo*

Paper Session 5 A — Diboll Conference Center Room A

Software and Hardware Systems

9:00 AM — Ambisonics Spatialization Tools for Max/MSP
Jan Schacher, Philippe Kocher

9:20 AM — Mobile STK for Symbian OS
Georg Essl, Michael Rohs

9:40 AM — VSCORE: As Real-Time Visual Application for Scoring Music Alternative
Juraj Kojs

10:00 AM — PerfComp: A Heuristic-Based Program for Analysis of MIDI Performance Files
Timothy Walker

10:20 AM — Creativity and Access in Electronic Music: Cracked and Pirated Software Instruments
Doloswala Kalika Navindra

Paper Session 5 B — Diboll Conference Center Room B

Music Information Retrieval

9:00 AM — Summarizing Musical Preferences as Audio Signatures
Jason Freeman

9:20 AM — jSymbolic: A Feature Extractor for MIDI Files
Cory McKay, Ichiro Fujinaga

9:40 AM — Automatic Chord Recognition Using Enhanced Pitch Class Profile
Kyogu Lee

10:10 AM — Automatic Raag Classification of Pitch-Tracked Performances Using Pitch-Class and Pitch-Class Dyad Distributions
Parag Chordia

Paper Session 6 A — Diboll Conference Center Room A

Sound Synthesis and Analysis

3:30 PM — Visualizing Sound Environment During Orchestra Performance Based on Time Frequency Analysis
Satoru Morita, Sayaka Tokunou

4:00 PM — Fuzzy Logic Control Tool Kit: Real-Time Fuzzy Control for Max/MSP and Pd
Rodrigo Cadiz, Gary Kendall

4:30 PM — Musical Tapestry: Re-Composing Natural Sounds
Ananya Misra, Perry Cook, Ge Wang

5:00 PM — Scalable Wavetable Matching for Real-Time Polyphonic Synthesis
Wavetable Synthesis
Simon Wun, Andrew Horner

5:20 PM — Concatenative Synthesis Using Score-Aligned Transcriptions
Roger Dannenberg

5:40 PM — Circle Maps as a Simple Oscillators for Complex Behavior: I. Basics
Georg Essl

Paper Session 6 B — Diboll Conference Center Room B

Interactive Performance Systems

3:30 PM — On the Development of a System for Gesture Control of Spatialization
Mark Marshall, Nils Peters, Alexander Refsum Jensenius, Ajay Kapur

4:00 PM — Development of a Versatile Interactive Performance System
Douglas Geers, Maja Cerar

4:30 PM — Radio Drum Gesture Detection System Using Only Sticks, Antenna and Computer with Audio Interface
Ben Neville

5:00 PM

Performer Adaptive Scores: An Introduction and Demonstration
Robert Frank

5:30 PM

The ArtsSync Project: Methods and Architectures for Mapping Foreground, Middle-Ground and Background Musical Structures to Visual Images
Christopher Keyes, Marcel Wierckx

Paper Session 7 A — Diboll Conference Center Room A

Studio Reports

9:50 AM — Georgia Tech Music Technology Group – Studio Report
Gil Weinberg, Jason Freeman, Parag Chordia, Frank Clark, Chris Moore, Scott Driscoll, Travis Thatcher

10:10 AM — The Loyola University Music Technology Lab
Sanford Hinderlie

10:30 AM — Tulane Music Technology Studio Report
Conner Richardson, James Cook, Tae Hong Park

Paper Session 7 B — Diboll Conference Center Room B

Computer Systems in Music Education

9:50 AM — Musical Interaction Design with the CREATE USB Interface: Using a CUI Instead of a GUI for HCI
Dan Overholt

10:20 AM — Sound and Interaction for K-12 Mediated Education
David Birchfield, Thomas Ciufo, Harvey Thornburg,
Wilhelmina Savenye

Paper Session 8 A — Diboll Conference Center Room A

Interactive Performance Systems

3:30 PM — Musical Performance over Internet2 Using the AccessGrid
Charles Nichols, Scott Deal, Timothy Rogers, Jimmy Miklavcic,
Beth Miklavcic, Many Ayromlou

4:00 PM — PLOrk: The Princeton Laptop Orchestra, Year 1
Daniel Trueman, Perry Cook, Scott Smallwood, Ge Wang

4:30 PM Real-Time Synchronization of Independently-Controlled Phasors
Lonce Wyse

5:00 PM A Paradigm For Physical Interaction With Sound In 3-D Audio Space
Mike Wozniewski, Zack Settel, Jeremy Cooperstock

5:30 PM Jam'aa - A Middle Eastern Percussion Ensemble for Human and Robotic Players
Gil Weinberg, Scott Driscoll, Travis Thatcher

Paper Session 8 B — Diboll Conference Center Room B

Music Analysis

3:30 PM Recording Quality Ratings by Music Professionals
Richard Repp

4:00 PM Data Association Techniques for a Robust Partial Tracker of Music Signals
Hamid Satar-Boroujeni, Bahram Shafai, Patric J. Wolfe

4:30 PM Musical Tension Curves and Its Applications
Min-Joon Woo, In-Kwon Lee

5:00 PM Detecting Motives and Recurring Patterns in Polyphonic Music
Paul Utgoff, Phillip Kirlin

5:30 PM Melodic Modeling: A Comparison of Scale Degree and Interval
Yipeng Li, David Huron

Paper Session 9 A — Diboll Conference Center Room A

Composition Systems and Techniques

9:00 AM — Pragmatic Considerations in Mixed Music: A Case Study of La Rage
Pierre Alexandre Tremblay

9:20 AM — Computer Music Enaction
Kevin Dahan

9:50 AM — *KEYNOTE SPEECH*
Max Mathews
Freeman Auditorium

Paper Session 9 B — Diboll Conference Center Room B

Sound Synthesis and Analysis

9:00 AM — Feature-Based Synthesis: Mapping from Acoustic and Perceptual Features to Synthesis Parameters
Matt Hoffman, Perry R. Cook

9:20 AM — Fujara: A Physical Model of the Bass Pipe Instrument in an Interactive Composition
Juraj Kojs

9:50 AM — *KEYNOTE SPEECH*
Max Mathews
Freeman Auditorium

Paper Session 10 A — Diboll Conference Center Room A

Artificial Intelligence and Music

3:30 PM — A Comparison of Statistical Approaches to Symbolic Genre Recognition
Carlos Perez-Sancho, Pedro J. Ponce de Leon, Jose M. Inesta

4:00 PM A Novel Approach to Automatic Music Composing: Using Genetic Algorithm
Damon Daylamani Zad, Babak Araabi, Timothy Opie, Andrew Brown

4:30 PM A Factored Language Model for Time-Quantized Music
Xiao Li, Gang Ji, Jeff Bilmes

5:00 PM Auralization of a Constraint Solver
Arnaud Lallouet, Jeremie Vautard

5:30 PM Towards Machine Learning of Expressive Microtiming in Brazilian Drumming
Matthew Wright, Edgar Berdahl

5:40 PM An Evolved Neural Network/HC Hybrid for Tablature Creation in GA-based Guitar Arranging
Daniel R. Tuoy, W.D. Potter

Paper Session 10 B Diboll Conference Center Room B

Composition Systems and Techniques

3:30 PM An Acousmatic Composition Environment
Morten Breinbjerg

4:00 PM "We Don't Write Songs. We Write Records": A Compositional Methodology based on Late 20th Century Popular Music
Simon Zagorski-Thomas

4:30 PM Score Generation in Voice-Leading and Chord Spaces
Michael Gogins

5:00 PM Bioinformatic Response Data as a Compositional Driver
Robert Hamilton

5:30 PM A Sample Accurate Triggering System for Pd and Max/MSP
Eric Lyon

Paper Session 11 A — Diboll Conference Center Room A

Interactive Performance Systems

9:00 AM — Comparing Musical Control Structures and Signal Processing Strategies for the Augmented Cello and Guitar
Adrian Freed, Ahm Lee, John Schott, Matt Wright, Michael Zbyszynski, Frances Marie Uitti

9:30 AM — Laptop Performance: Techniques, Tools, and a New Interface
Mark Zadel, Gary Scavone

10:00 AM — The Immersive Computer-Controlled Audio Sound Theater: Experiments in Multi-Mode Sound Diffusion Systems for Electroacoustic Music Performance
Stephen David Beck, Joseph Patrick, Brian Willkie, Kenley Malveaux

10:30 AM — The AIMS Project: Creative Experiments in Musical Sonification
Reginald Bain

Paper Session 11 B — Diboll Conference Center Room B

SEAMUS Papers/Miscallaneous

9:00 AM — To Be: The Music of Johanna Magdelena Beyer
Meg Schedel

9:30 AM — Precursors to the Formation of the Columbia-Princeton Electronic Music Center
Hartsock, Ralph

10:00 AM — Interview with Halim El-Dabh
Bob Gluck

10:30 AM — The Sound Recordist as Composer: Aesthestic and Practical Concerns
Colby Leider, Kristine H. Burns

Paper Session 12 A — Diboll Conference Center Room A

Psychoacoustics, Music Perception and Cognition/ Miscellaneous

3:30 PM — An Intelligent SP-MIDI Polyphonic Reduction Algorithm
Siu Hang Lui, Andrew Horner, Lydia Ayers

4:00 PM — Musical Pattern Design Using Contour Icons
Charlie Cullen, Eugene Coyle

4:30 PM — The Thing About the Post-Modern Quotes: Quantitative Studies into "Music Technology" Degrees in Britain Using UCAS Data
Carola Boehm

5:00 PM — Evaluating and Extending Computational Models of Rhythmic Syncopation in Music
Leigh Smith, Henkjan Honing

Paper Session 12 B — Diboll Conference Center Room B

Digital Audio Signal Processing

3:30 PM — DSP Programming with Faust, Q and SuperCollider
Yann Orlarey, Albert Graf, Stefan Kersten

4:00 PM — AUTUMN: A General Pitch-Extraction Wave-to-MIDI Transcription System
Kevin Di Filippo, Andrew Horner, Eric Fung, Jenny Lim, Lydia Ayers

4:30 PM — PhaVoRIT - a Phase Vocoder for Real-Time Interactive Time-Stretching
Thorsten Karrer, Eric Lee

5:00 PM — DART: Distributed Audio Rendering and Retrieval Using Triana -- Experiments in Applying Grid Computing Technologies for Audio Processing
Ian Taylor, Stephen David Beck, Eddie Al-Shakarchi

5:30 PM

Squawk: A Graphical Software for Spectral Audio Processing
Ryoho Kobayashi

Poster Session 1 — Dixon Hall 118

3:30 PM – 6:00 PM

Integrated System for Cross-Platform/Cross-Application Education on Sound Synthesis and Signal Processing
Cipriani, Alessandro; Giri, Maurizio

Exploring Cognitive Process Through Music Composition
Lockhart, Adam

Third-Order Ambisonic Extensions for Max/MSP with Musical Applications
Wakefield, Graham

Amber: A Granular Sampling Application for Mac OS X
Bernard, Jennifer; McCabe, Matthew; Hoffmann, Kenneth

Digital Autonomy in Electroacoustic Music Performance: Re-Forging Stockhausen
Esler, Robert

Cooperative Multimedia Environments for Technology-Enhanced Music Playing and Learning with 3D Posture and Gesture Supports
Ong, Bee; Khan, Ali; Ng, Kia

Spectral and Granular Spatialization with Boids
Kim-Boyle, David

Poster Session 2 — Dixon Hall 118

3:30 PM – 6:00 PM

Towards the One-Man Indian Computer Music Performance System
Kapur, Ajay; Tzanetakis, George; Schloss, W. Andrew; Driessen, Peter F.; Singer, Eric

Computer Aided Composition by Means of Interactive GP
Ando, Daichi; Dahlstedt, Palle; Nordahl, Mats; Iba, Hitoshi

Recent Trends in PWGL
Laurson, Mikael; Kuuskankare, Mika

Aesthetics, Score Generation, and Sonification in a Game Piece
Magnus, Cristyn

Orchestra Spatialization using the AUDIENCE engine
Thomaz, Leandro; Faria, Regis; Zuffo, Marcelo; Zuffo, João

The Bluetooth Radio Ball Interface (BRBI): A Wireless Interface for Music/Sound Control And Motion Sonification
Yeo, Woon Seung

Poster Session 3 — Dixon Hall 118

3:30 PM – 6:00 PM

Spectral Signal Processing in Csound 5
Lazzarini, Victor; Lysaght, Thomas; Timoney, Joseph

MaxLink: a New Tool for Networked Performance
Kriss, Jesse

The LoM Mapping Toolbox for Max/MSP/Jitter
Van Nort, Doug; Wanderley, Marcelo

A Collaborative Composition System Based On A Service Oriented Architecture
Dovey, Matthew; Gibson, Ian

Motion as the Connection between Audio and Visuals
Moody, Niall; Fells, Nick; Bailey, Nick

The KiOm: A Paradigm for Collaborative Controller Design
Kapur, Ajay; Tindale, Adam R.; Benning, Manjinder S.; Driessen, Peter F.

Poster Session 4 — Dixon Hall 118

3:30 PM – 6:00 PM

Using Motiongrams in the Study of Musical Gestures
Jensenius, Alexander

Real-time Spectral Attenuation Based Analysis and Resynthesis, Spectral Modification, Spectral Accumulation, and Spectral Evaporation; Theory, Implementation, and Compositional Implications
Parks, Ronald

Phase-Bashed Packet Synthesis: A Musical Test
Puckette, Miller

A Music Information Retrieval System for Structural Queries
Pinto, Alberto

Morphopoiesis: An Analytical Model for Electroacoustic Music
Kokoras, Panayiotis

Studio Report: Audio Technology at American University Improving Curriculum through upgrading Facilities
Oehlers, Paul; Larkin, Teresa; Katz, Fred; Boerum, Matt; Weiner, Matt

Ssynth: a Real Time Additive Synthesizer With Flexible Control
Verfaille, Vincent; Boissinot, Julien; Depalle, Philippe; Wanderley, Marcelo

Poster Session 5 — Dixon Hall 118

3:30 PM – 6:00 PM

A Bottom-Up Approach to Chord Detection
Sailer, Christian; Rosenbauer, Katja

A Brief Survey of the Current Applications of ENP
Kuuskankare, Mika; Laurson, Mikael

Java Music Specification Language and Max/MSP
Didkovsky, Nick; Crawford, Langdon

Score Following of Orchestral Music Using Acoustic Pressure Peak-Tracking and Linear Stretch Matching
Miura, Takefumi; Akabane, Ayumu; Sato, Makoto; Tsuda, Takao; Inoue, Seiki

Mondrian Music Description Language and Sequencer
Brinkmann, Peter

MSC: A Computer Assisted System Integrating Music and Video through Magic Squares as Compositional Models
Oehlers, Paul; Mich, Christopher

Demo Session 1 ILC

3:10 PM – 4:10 PM

Pocket Gamelan: Tuneable Trajectories for Flying Sources in Mandala 3 and Mandala 4
Schiemer, Greg; Havryliv, Mark

The IXI Musical Instruments as Semiotic Machines
Magnusson, Thor

Shifty Looping: Meter-Aware, Non-Repeating Rhythmic Loops
Wright, Matthew

Sound Synthesis Affected by Physical Gestures in Real-time
Graugaard, Lars

Mood Mapping Technologies Within Hybrid Audio Design
Graugaard, Lars; Arnspang, Jens

Demo Session 2 ILC

3:10 PM – 4:10 PM

A Parallel-Formant Speech Synthesizer in Max/MSP
Ma, Michael Kexin; Fels, Sidney; Pritchard, Bob

{TranSpell}
Shiota, Kazuaki

Extended Applications of the Wireless Sensor Array (WiSeAr)
Topper, David

The Case Study of An Application of The System, "BodySuit" and "RoboticMusic" - Its Introduction and Aesthetics
Goto, Suguru

Design and Implementation of a Real-Time Fingering Detection System for Piano Performances
Yoshinari, Takegawa; Tsutomu, Terada; Shojiro, Nishio

Demo Session 3 ILC

3:10 PM – 4:10 PM

Performer Adaptive Scores: An Introduction and Demonstration
Frank, Robert

Mobile Networked Music Demonstration: Sequencer404
Thatcher, Travis; Jimison, David; Goetzinger, John; Freeman, Jason; Weinberg, Gil

Physical Interaction With Sound In 3-D Audio Space
Wozniewski, Mike; Settel, Zack; Cooperstock, Jeremy

Aesthetics, Score Generation, and Sonification in a Game Piece
Magnus, Cristyn

Panel Session 1 — Dixon Recital Hall

3:30 PM

Research and Development of Computer Music: The Industry Perspective

Sayli Benadikar, Tom Erbe, Tim Place, Bruce Pennycook (chair)

The aim of this panel is to discuss the relationship between computer music researchers/practitioners and the music industry, including issues relating to the development of marketable products, open source, and matching musical needs to technology/industry constraints. How does innovative research presented at conferences such as the ICMC find its way to commercial applications? Does work/training supported by academic institutions meet the needs of the music industry? How well does the industry respond to user concerns? How do great ideas for new tools find their way into the marketplace or to the users?

Panel Session 2 — Freeman Auditorium

9:30 AM

Integrating Technology and Traditional Cultural Expression

Shahroakh Yadegari, Sinan Bokesoy, Richard Teitelbaum, Yuriko Hase Kojima, Doo Jin Ahn
Bob Gluck (chair)

While many electroacoustic composers world-wide root their works in European, British or North American musical traditions, an increasing number draw upon resources specific to the cultures of their birth. This panel is an opportunity for composers who integrate culturally-specific sounds, musical forms and aesthetic elements into their work to discuss their philosophies, motivations and experiences, including areas of friction between the expectations of varying traditions and issues relating to cross-cultural borrowing and exchange.

Panel Session 3 — Dixon Recital Hall

3:30 PM

The Laptop Ensemble as Pedagogical Tool

James Harley, Stephen Rush, Dan Trueman, Nathan Wolek (co-chair), Virgil Moorefield (co-chair)

The performing ensemble has a firmly established role in music education. In the music conservatory model, conventional acoustic groups such as the chamber orchestra provide students with the opportunity to apply musicianship skills that are taught in the classroom. These skills typically encompass subjects such as theory, analysis and aural skills. Traditional ensembles also have long-standing conventions about how their membership should be balanced based on instrumentation or range. When extending this ensemble tradition into the domain of technology-based music, certain questions commonly arise: what instrumentation is most effective in a technology-based music ensemble? What is the primary intellectual focus of the activity (code, learning software, performance skills)?

Institutions of higher learning produce diverse answers to these questions. Historically, there have been some general trends. Early technology-based ensembles were centered around the synthesizer, and leveraged its timbral

variety. Repertoire usually consisted of arrangements or commissioned compositions tailored to an ensemble's membership. As computer hardware has become less expensive and more portable, the laptop computer has begun to unseat the synthesizer as the instrument of choice.

The transition from synthesizer to laptop has created exciting creative and pedagogical possibilities. The use of general computing hardware makes it easier to explore intermedia, and enables students to more directly participate in The Laptop Ensemble as Pedagogical Tool 2 of 6 the compositional responsibilities; this in turn raises the question of aesthetic antecedents and direction. As a teaching tool, technology-based music ensembles facilitate experiential, problem-based, collaborative learning in ways that complement and extend conventional classroom teaching. This panel will focus on the ability of laptop ensembles to enhance the development of artistic and technical skills in music students.

Panel Session 4 — Dixon Recital Hall

3:30 Electronic and Computer Music Beyond Europe and North America

Erdem Helvacioglu, Rodrigo Sigal, Shlomo Dubnov, Zhang Xiaofu, Sapto Raharjo, Larry Polansky (chair)

When viewed from a broader international perspective, the history of electronic music expands and changes shape. This panel is an opportunity to explore the breadth and depth of creative expression in the field throughout regions where its history has not been fully documented. How do composers navigate their relationship between Eastern and Western traditions and aesthetics? What do these respective traditions have to teach one another? Are there concerns that should be aired?

Panel Session 5 — Dixon Recital Hall

3:30 PM

Musical Anticipation

David Wessel, David Huron, Shlomo Dubnov, Roger Dannenberg, Arshia Cont (chair)

For more than half a century, researchers in the fields of musicology and music perception have emphasized the importance of Expectation in listeners' experience of music and composers' choreographing of sound. On the other hand, many MIR and computer music systems are prediction-driven. Recently, the notion of musical anticipation has emerged in the literature and in various fields addressing both concepts in a single framework and creating excitement in their fields. This panel brings in researchers from various fields tackling different dimensions of research pertaining to musical anticipations. In this panel we hope to arrive at a common ground and definition of musical anticipation to foster research, to share and open up horizon for future research, address and suggest directions for unsolved problems in computer music. We will be approaching the concept with existing examples in cognitive musicology, computer-assisted composition, style generation and music information retrieval thanks to the diversity of the panelists. We also hope that a new community coalesces to study the subject, informed by the diverse traditions of computer music, artificial intelligence, cognitive sciences, and music perception.

Panel Session 6 — Dixon Recital Hall

3:30 PM — The "Communities" of Computer Music

Jon Appleton, Kris Burns, Pauline Oliveros, Greg Taylor, James Harley (chair)

In the pioneering years of computer music, right through the first years of the ICMC and the Computer Music Journal, there appears to have been a strong sense of community, in the sense of shared purpose, access to facilities/technology, and even aesthetics. With the improvement and affordability of technology, both hardware and software, the necessity for sharing resources and expertise seems to have dwindled, or at least to have splintered into communities centered around specific platforms, software, musical interests, gender, nationality, and social relationships. Where there used to be one conference focused on computer music, there are now many, ranging from specific research concerns such as music information retrieval or new musical interfaces to commercial gatherings promoting new products. It is difficult these days to determine which associations are most important to belong to, which conferences one ought to attend (or can afford to attend). The sense of shared purpose is often difficult to discover, particularly for those working independently of academia. This panel will discuss the notion of community, or communities, in computer music, with the aim of presenting, and encouraging, a range of perspectives.

WORKSHOPS

SCHEDULES AND DETAILS

FOR

WORKSHOPS

CHUCK/AUDICLE PROGRAMMING LANGUAGE

INTRODUCTION TO HCI: SENSOR INTERFACE DESIGN AND IMPLEMENTATION

WOLFRAMTONES (MATHEMATICA) WORKSHOP

FIXED-POINT DIGITAL AUDIO PROCESSING USING SIMULINK AND ITS BLOCKSETS