# **Opening Concert**

## June 4, 2008, h. 18.00, Auditorium Casa Paganini

This concert includes four original music pieces emerging from the experience of four young composers working with interactive technologies, and in particular with the EyesWeb XMI platform for eXtended Multimodal Interaction (www.eyesweb.org). EyesWeb XMI supports the design of multimodal interactive systems, the analysis and processing of expressive full-body movement and gesture, and a large number of further features. This concert shows on stage concrete results from current research at Casa Paganini-InfoMus Lab (www.casapaganini.org). The concert is not just held at Casa Paganini: it fully exploits the whole environment of Casa Paganini as an overall instrument/interface for musical expression.

The opening concert is partially supported by the EU FP7-ICT Project SAME (www.sameproject.eu) on active music listening, and by the EU-Culture 2007 Project CoMeDiA (www.comedia.eu.org) on networked performance.

In particular, the piece "Lo specchio confuso dell'ombra" by Roberto Girolin faces the problem of remote communication and social interaction between audience in different locations: the Foyer and the Auditorium of Casa Paganini. The piece is structured in two separate but communicating installations. One of the main scientific research issues behind this piece, raised and experimented during its design and implementation is on "how to interact and to convey expressive content in a remote networked environment?", one of the main core issues of CoMeDiA.

The piece "The Bow is bent and drawn" by Nicola Ferrari is again another challenge, this time centered on the SAME ICT EU Project. This piece explores a novel paradigm on "active music listening" developed at Casa Paganini - InfoMus Lab, described in the paper by Camurri et al. in these proceedings. The active music listening paradigm has been elaborated and transformed into a compositional element by the composer.

# Lo specchio confuso dall'ombra

Composer: Roberto Girolin robertogirolin@gmail.com

EyesWeb interactive systems design: Paolo Coletta, Simone Ghisio, Gualtiero Volpe

## **Biographical information**

Roberto Girolin (1975) was born in Pordenone, Italy, and after studying of the classical guitar he began to study the piano and composition at the "J. Tomadini" Conservatory in Udine. He studied the vocal and instrumental counterpoint, graduating in choral music and conducting in the same Conservatory. He has conducted many choirs and orchestras, exploring different kinds of repertories from Gregorian music to contemporary music.

He has deepened the study of contemporary music at the University of Udine with Dr.A.Orcalli and then with Dr.N.Venzina at "B.Maderna" Archive in Bologna (Italy). He has followed several Masterclasses and seminars: choral music, chamber music, composition (Salvatore Sciarrino, Fabio Nieder, Mauro Bonifacio), electronic music (Lelio Camilleri, Agostino Di Scipio), a *Sound Design course* with Trevor Wishart, an *Audio Digital Signal Processing for Musical Applications* (Lab workshop, lessons and applications) with Giuseppe Di Giugno and *live electronics in Luigi Nono's works* with Alvise Vidolin and André Richard (Experimental Studio Freiburg für Akustische Kunst).

He graduated with full marks in Electronic Music and Multimedia at the Musical Academy of Pescara (Italy) and in 2006 he also got his degree at the Conservatory of Venice under the direction of Alvise Vidolin with full marks (cum Laude).

He is actively involved in performing and investigating the compositional and performance potential offered by electronic&multimedia music systems. His music is performed in Italy and abroad. He has recently won the "Call 2007", (Italian CEMAT Competition) and a Mention at the 34th "Concours Internationaux de Musique et d'Art Sonore Electroacoustiques de Bourges", France.

## **Description of Piece**

Lo specchio confuso dall'ombra can be translated as "The mirror confused by its shadow" and it is between a distributed *installation* and a concert, in which opposing groups of performers in two remote places play solo or interact.

The audience (two people at a time, one for each installation) activates video and sound transformations, depending on the space they occupy and their gesture. The two installation are in the Foyer and in the Auditorium, respectively, so the two persons from the audience cannot see and talk each other. Multimodal data and expressive gesture cues are extracted in real-time by an EyesWeb patch, interacting and playing with the electronic performer. The interaction occurs both between the electronic performer and the two places where the audience has access, and between the two remote installations. There are two different levels of intervention in the audio and video transformation: *autonomous*, depending on the single person and *conditioned*, depending on the behaviour and the actions occurring in the other, separate installation.

Further, the entrance of the concert hall has microphones, which capture words, sentences, coughs, laughs or other noise, which are transformed in real-time and thus entering into the piece.

Lo specchio confuso dall'ombra can't bind the audience remain seated or follow a specific pattern in his behaviour. His duration is indefinite: it changes every time it is performed.

### Acknowledgments

This piece has been commissioned by Casa Paganini – InfoMus Lab, to tackle open problems on networked performance faced in the EU Culture 2007 Project CoMeDiA.

# The Bow is bent and drawn

Four Parts Madrigale Rappresentativo For four Dancers and EyesWeb

Composer: Nicola Ferrari InfoMus Lab – Casa Paganini, Genova eusebius\_1799@yahoo.com

Based on the installation "Mappe per Affetti Erranti", designed and developed by Antonio Camurri, Corrado Canepa, Nicola Ferrari, Gualtiero Volpe texts from Edmund Spenser's *The Faire Queen* and William Shakespeare's *King Lear* with support of EU ICT Project SAME Vocalists: Roberto Tiranti (tenor and vocal conductor), Valeria Bruzzone (alto), Chiara Longobardi (soprano), Edoardo Valle (bass)

Dancers: Giovanni Di Cicco (choreography), Luca Alberti, Filippo Bandiera, Nicola Marrapodi

Recording engineer and music consultant: Marco Canepa Sound engineers: Corrado Canepa (director), Chiara Erra (assistant)

EyesWeb interactive systems design: Paolo Coletta, Barbara Mazzarino, Gualtiero Volpe

## **Biographical information**

Nicola Ferrari was born in 1973. He studied composition with Adriano Guarnieri and took his degree at 'G. B. Martini' Conservatory in Bologna. He took his Master Degree and PhD from the Faculty of Arts and Philosophy at University of Genoa. Since 2005 he is a member of the staff of the InfoMus Lab. For many years he directed the 'S.Anna' polyphonic choir. He wrote scores for theatrical performances.

## **Description of the Piece**

The bow is a theatrical *mise-en-scene* of the installation *Mappe per Affetti Erranti*. During the Science Festival 2007, as a preparatory work for the EU ICT Project SAME on active listening (www.sameproject.org), the audience was invited to explore and experience a song by John Dowland (see the paper on these proceedings by Camurri et al). The audience could walk inside the polyphonic texture, listen to the singles parts, change the expressive quality of musical interpretation by their movement on the stage of Casa Paganini analysed with EyesWeb XMI. Aesthetically, the most interesting result consists in the game of hiding and revealing a known piece. The idea could be matched with the classical theatrical *topos* of recognition. So, the musical potentiality of the 'interactive performance' of a prerecorded music becomes a new dramaturgical structure.

Roberto Tiranti and his madrigalistic group recorded, under the supervision of Marco Canepa, different anamorphic interpretations of a bachian choral. Thanks to the interactive application developed with EyesWeb XMI, the group of dancers conducted by the choreographer Giovanni Di Cicco, mix and mould the recorded music material in real time. At the same time, the live sound of the vocal group explores the whole space of Casa Paganini, as a global (both real and imaginary) musical instrument. In a metamorphic game where, according to Corrado Canepa's compositive lesson, electronic and acoustic technologies merge and interchange their specificity, this interactive score of losing and finding, multiplying and distillating the ancient bachian palimpsest tries to tell the dramatic history of King Lear, the most tragic western figure of difficulty to reach the affects you possess without being able to know or express.

## Acknowledgments

The music commission is kindly offered by Fondazione Spinola. The scientific and technological developments are partially supported by the EU FP7 ICT Project SAME (www.sameproject.eu).

# Tre aspetti del tempo per iperviolino e computer

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### **Biographical information**

Giorgio Klauer studied electronic music, instrumental composition, flute and musicology in Trieste, where he was born in 1976, in Cremona and in Liège. He is professor at the Conservatory of Como, school of music and sound technologies.

#### **Description of Piece**

Putting a distance sensor under the scroll of the instrument and an inclination sensor on the wrist, the detection of the displacements of the limbs of the interpreter becomes possible. These displacements, drawn onto a cartesian plane, give the coordinates of a track in an ideal performing space, whose third dimension is increased and formed by the passing of time. Actually, the computer permits to assimilate to the aforesaid track the sounding path proposed by the interpreter, hence to rehear it. Also in the latter case, the coordinates to access it are given by current gestures, therefore the dimension of time results bundled, somehow like considering a parchment palimpsest: the sounding form returned by the computer results increasingly dense and inexplicable and needs an electroacoustic exegesis that unleash it at least in shreds.

The procedures of musical production are here a metaphor for knowledge; alike are the compositional methods at the root of the score, which providing the prescriptions of the musical path, portrays in addition a mental track.

## **Aurora Polare**

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### **Alessandro Sartini**

Born in Genoa in 1982, he studied piano with Canzio Bucciarelli and attends the last year of Composition at the Conservatory of Genoa with Riccardo Dapelo, who introduced him to "live electronic" treatments. His first public exhibition was at the Auditorium Montale of the Carlo Felice Theatre in Genoa, during the concert commemorating the 50th anniversary of Béla Bartók's death in 1995. From that year on he established a great number of collaboration with various solo musicians, who really appreciated his way to accompany; this guided him to work in partnership with a good number of professional soloists. In 1999 he joined the class of Composition at the Conservatory of Genoa with Luigi Giachino, who introduced him to film music: this interest led him to win the third prize at the Lavagnino International Film Music Festival in Gavi in 2006 and the first prize at the "Concorso Internazionale di Composizione di Alice Belcolle" in 2007. With Valentina Abrami, he is the founder of the "Associazione Musica in Movimento", which operates at the "International School in Genoa".

## **Aurora Polare**

Aurora Polare (Polar Dawn) is a short piece for cymbals, tam-tam, vibraphone, live electronics and EyesWeb system. This piece was inspired by the smooth movements of waves, the drawings created by polar dawns and the cold weather in polar seas – that's the reason why only metallophones are used.



The first matter to fight with was making the percussionist elaborate the sound they produce while playing their instruments and crafting a brand-new easy way to specify every movement. That's why, under the traditional notation score, two special lines follow the music specifying the direction to move to: up-down and left-right/near-far. A line approaching the top or the bottom of the Y axis tells the way to track. You can find an example here on the left.

All of those movements fully interact with EyesWeb and MAX MSP thru two 30fps accelerometer bracelets worn by the performers. Every vertical movement controls the volume of the processed sound, while horizontal movements manage a different patch in MAX MSP suited to every instrument: a tam-tam sample speed controller (this make the instrument play without being touched), an harmonizer to make cymbals sing just like a Theremin, but with their own processed sound, and

the rate of a delay. In the control room a MIDI controller and a computer will be used to manage live additional effects and parameters, like granular synthesis, reverb and multi-slider filters.

Thanks to Martino Sarolli for helping me with MAX MSP, to Matteo Rabolini and Matteo Bonanni for playing my composition.

# Pyrogenesis

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## **Biographical information**

Pascal Baltazar is a composer and research coordinator at GMEA, National Center for Musical Creation in Albi, France. His research focuses on spatial and temporal perception of sound, and its relationship to the body and musical gesture. He is coordinating the *Virage* research platform, on control and scripting novel interfaces for artistic creation and entertainment industries, granted by the French Research Agency, in the frame of its Audiovisual and Multimedia program, for the 2008-2009 period. He is an active member of the Jamoma collective.

He has studied Aesthetics (Masters of Philosophy Thesis *The sonic image : material and sensation*, 2001, Toulouse III, France) and electroacoustic composition at the National Conservatoire of Toulouse. He has then been implied as a composer or interactive designer in diverse artistic projects : concerts, performing arts shows and interactive installations. He has been commissioned for musical works by several institutions, as the French State, INA-GRM, GMEA, IMEB... and participated in international festivals (Présences Électroniques, Paris / Radio France Festival, Montpellier / Synthèse, Bourges / Videomedeja, Novi Sad / Space + Place, Berlin...).

## **Description of Piece**

The composition of Pyrogenesis took inspiration from several aspects of the blacksmithing, not in a literal way, but much as a set of correspondences :

First, the gesture, by which the blacksmith models the matter continuously; striking, heating, twisting, soaking metals to gradually print a form into them.

Then, the tool: Just like the blacksmith manufactures his own tools, I work on developing my own electro-acoustic instrument: an instrument to write sound, in space and with a gestural input.

Lastly, the organic construction of the form: Gilles Deleuze says "Why is the blacksmith a musician? It is not simply because the forging mill makes noise, it is because the music and the metallurgy are haunted by the same problem: that the metallurgy puts the matter in the state of continuous variation just as the music is haunted by putting the sound in a state of continuous variation and to found in the sound world a continuous development of the form and a continuous variation of the matter "

On a more technical/scientific point of view, the interaction with the performer uses two interfaces : a Wacom tablet, and a set of forceresistive-sensors (through an analog-to-digital converter), which common point is that they both allow control by the pressure of hands, and thus offer a very "physical" mode of control.

The composition/performance environment consists of a set of generative audio modules, fully addressable and presettable, including a mapping engine allowing a quick yet powerful set of mapping strategies from controllers inputs and volume envelopes to any parameter, including those of the mappers themselves, allowing a very precise, flexible, and evolutive sound/gesture relationship in time.

The composition has been realized through a constant dialogue between improvisations in a pre-determined trajectory, and afterwardslistening of the produced result. Thus, most of the details of the composition have been generated by an improvisation/learning-throughrepetition process, without any visual support - thus allowing to emphasize expressivity while keeping a very direct relationship to the musical gesture.

# *Keo* Improvisation for sensor instrument Qgo

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## **Biographical information**

Chikashi Miyama received his BA(2002) and MA(2004) from the Sonology Department, Kunitachi College of Music, Tokyo, Japan and Nachdiplom(2007) from Elektronisches studio, Musik-Akademie der Stadt Basel, Basel, Switzerland. He is currently attending the State University of New York at Buffalo for his ph.D. He has studied under T.Rai, C.Lippe, E.Ona, and G.F.Haas. His works, especially his interactive multimedia works, have been performed at international festivals, such as June in Buffalo 2001 (New york, USA), Mix '02 (Arfus, Denmark), Musica Viva '03 (Coimbra, Portugal), Realtime/non-realtime electronic music festival (Basel, Switzerland), Next generation'05 (Karlsruhe, Germany), as well as various cities in Japan. His papers about his works and realtime visual processing software "DIPS" have also been accepted by ICMC, and presented at several SIGMUS conferences. Since 2005, he has been performing as a laptop musician, employing his original sensor devices and involving himself in several Media-art activities, such as Dorkbot, Shift-Festival, SPARK, and SGMK workshops. His compositions have received honorable mention in the Residence Prize section of the 30th International Electroacoustic Music Competition Bourges and have been accepted by the International Computer Music Conference in 2004, 2005, 2006 and 2007. Several works of him are published, including the Computer Music Journal Vol.28 DVD by MIT press and the ICMC 2005 official CD.

## **Description of Piece**

"Keo" is a performance for voice improvisation, Qgo sensor instrument, and live electronics. The author attempts to realize three concepts in the work. The first is "dual-layered control," in which the performer improvises phrases by singing and providing sound materials for a computer. Simultaneously, he sends commands to the computer to process vocals using a pair of sensor devices worn on both hands. The second is the connection

between the visuality of the performance and the musical gestures. In most parts of the performance, the movement of the sensor instrument and the musical parameters are clearly connected. If the performer moves his hand even slightly, particular aspects of the sound are influenced in an obvious manner. The third is the strong connection between music and theatricality. In several parts of this work, the body motions of the performer not only control the sensor device, but also provide some theatrical meanings. (Photo ; Qgo, sensor instrument)



# **Intersecting Lines**

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### **Biographical information**

François Houle has established himself as one of Canada's finest musicians. His performances and recordings transcend the stylistic borders associated with his instrument in all of the diverse musical spheres he embraces: classical, jazz, new music, improvised music, and world music. As an improviser, he has developed a unique language, virtuosic and rich with sonic embellishments and technical extensions. As a soloist and chamber musician, he has actively expanded the clarinet's repertoire by commissioning some of today's leading Canadian and international composers and premiering over one hundred new works. An alumnus of McGill University and Yale University, François has been an artist-in-residence at the Banff Centre for the Arts and the Civitella Ranieri Foundation in Umbria, Italy. Now based in Vancouver, François is a leader in the city's music community and is considered by many to be Canada's leading exponent of the clarinet.

Keith Hamel is a Professor in the School of Music, an Associate Researcher at the Institute for Computing, Information and Cognitive Systems (ICICS), a Researcher at the Media and Graphics Interdisciplinary Centre (MAGIC) and Director of the Computer Music Studio at the University of British Columbia. Keith Hamel has written both acoustic and electroacoustic music and his works have been performed by many of the finest soloists and ensembles both in Canada and abroad. Many of his recent compositions focus on interaction between live performers and computer-controlled electronics.

Aleksandra Dulic is media artist, theorist and experimental filmmaker working at the intersections of multimedia and live performance with research foci in computational poetics, interactive animation and cross-cultural media performance. She has received a number of awards for her short animated films. She is active as a new media artist, curator, a writer, an educator, teaching courses, presenting art projects and publishing papers, across North America, Australia, Europe and Asia. She received her Ph.D. from the School of Interactive Art and Technology, Simon Fraser University in 2006. She is currently a Postdoctoral research fellow at the Media and Graphics Interdisciplinary Centre, University of British Columbia funded by Social Sciences and Humanities Research Council of Canada (SSHRC).

### **Description of Piece**

Intersecting Lines is a collaboration between clarinetist François Houle, interactive video artist Aleksandra Dulic and computer music composer Keith Hamel. The work grew out of Dulic's research in visual music and involves mapping a live clarinet improvisation onto both the visual and audio realms. In this work an intelligent system for visualization and signification is used to develop and expand the musical material played by the clarinet. This system monitors and interprets various nuances of the musical performance. The clarinetist's improvisations, musical intentions, meanings and feelings are enhanced and extended, both visually and aurally, by the computer system, so that the various textures and gestured played by the performer have corresponding visuals and computer-generated sounds. The melodic line, as played by the clarinet, is used as the main compositional strategy for visualization. Since the control input is based on a classical instrument, the strategy is based on calligraphic line drawing using artistic rendering: the computer-generated line is drawn in 3D space and rendered using expressive painterly and ink drawing styles. The appearance of animated lines and textures portray a new artistic expression that transforms a musical gesture onto a visual plane. Kenneth Newby made contributions to the development of the animation software. This project was made possible with generous support of Social Sciences and Humanities Research Council of Canada.

# Vistas

Ernesto Romero Los Platelmintos Union 139-5, Col. Escandón, México, D.F. tait\_mx@yahoo.com

## Esthel Vogrig Los Platelmintos Union 139-5, Col. Escandón, México, D.F. cuki100@hotmail.com

### **Biographical information**

Los Platelmintos are a group of artists, living in Mexico City, that work under the premise of interdiscipline and experimentation. Dance, music and electronic media are fundamental elements in their work. Ernesto Romero : music composition and electronic media. Studies Composition, Mathematics and Choir conduction in México. Chief of the Audio Department at the National Center for the Arts in México where he researches and developes technology applied to the arts. Esthel Vogrig : Coreographer and dancer. Studies contemporary dance and coreography in México, V ienna and the United States. Director of *Los PLatelmintos* company. Recipient of the "Grant for Investigation and Production of Art Works and New Media" from the National Council of the Arts and the Multimedia Center in Mexico. This grant was used to produce the piece Vistas. Karina Sánchez : Dancer. Studies contemporary dance and coreography in Chile, Spain and México.

### **Description of Piece**

Diagrams/images are welcome (do not exceed 1 page total).

VISTAS. (2005) Choreography with video, one musician playng live electronics and two dancers with metainstruments interacting with the music. Divided in three scenes the work is conceptually based in the "self-other" cognitive phenomena inspired by Edgar Morin's idea of the evolution of society through interdisciplinary interaction. The interdisciplinary feature of the piece is carefully constructed using 2 metainstruments that link the formal elements in a structural way. This metainstruments are two wireless microphones plugged into two stethoscopes attached to the dancers hands. The movements of the dancers make the microphones generate an amplitude that is transmitted to the computer and mapped into different music elements. Some live voice participations from the dancers add dramatic accents to the piece. Vistas is en integral piece in wich the music supports the choreography as well as the choreography gets influenced by the music. The video supports the scene creating an abstract space that changes and evolves according to the performance. The musical aesthetic has Noise elements and voice sample manipulation playing with texture and density contrast in a very dynamic way. The language of the choreography comes from an exploration of the planes in a 3rd dimension space by separate first and united later. The language is also influenced by the need to achieve the best usage as possible of the metainstrument



# **The Pencil Project**

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## **Biographical information**

## **Martin Messier**

Holding a diploma in drums for jazz interpretation, Martin Messier has completed a bachelor's degree in electroacoustic composition at the University of Montreal, and De Montfort University in England. Recently, Martin has founded a solo project called « et si l'aurore disait oui… », through which he develops live electroacoustic performance borrowing stylistic elements from Intelligent Dance Music, acousmatic and folk. Based on strong aptitudes for rhythm, Martin's esthetic can be defined as a complex, left field and happily strange sound amalgam, constantly playing with construction and deconstruction.

## **Jacques Poulin-Denis**

Jacques Poulin-Denis is active in projects that intersect theater, dance and music. He has completed his undergraduate studies in electroacoustic composition from the University of Montreal, and De Montfort University in England. Most of his music was composed for theater and dance. Jacques explores innovative ways of presenting electro-acoustic music. Jacques' musical style is evocative and filled with imagery. Combining traditional and electronic instruments with anecdotic sound sources of everyday life, he creates vibrant music that is fierce and poetic.

## **Description of the piece**

*The Pencil Project* is a performance piece created by sound artists Martin Messier and Jacques Poulin-Denis. Their intention was to craft a live electronic music piece inspired by the physicality of writing and the imagery it articulates. The performers translate scribbling, scratching, dotting and drawing with pencil music. The computers are hidden and untouched throughout the piece, allowing object manipulation and the creation of sound to be the performers' main focus.

*The Pencil Project* is about musicianship. Liberated from the computer screen and equipped with hands-on objects, the performers explore a new form of expressivity. Through an authentic and stimulating performance, the musicians bring computer music intimately close to playing an actual musical instrument.

Proceedings of the 2008 Conference on New Interfaces for Musical Expression (NIME08), Genova, Italy

## Heretic's Brew

Stuart Favilla Bent Leather Band CTME, OTRL, Victoria University Melbourne, Australia sfavilla@bigpond.com Joanne Cannon Bent Leather Band Melbourne, Australia joanne\_cannon@bigpond.com Tony Hicks Saxophonist/Multi-Instrumentalist Melbourne Australia

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## **Biographical information**

Composer/improviser **Joanne Cannon**, is one of Australia's leading bassoonists. Although she began her career as a professional orchestral musician, she now works as a composer and improviser, exploring extended techniques. **Stuart Favilla** has a background in composition and improvisation. Together they form the **Bent Leather Band**, a duo that has been developing experimental electronic instruments for over twenty years in Australia. Bent Leather Band blurs virtuosity and group improvisation across a visual spectacle of stunning original instruments. These were made in conjunction with Tasmanian leather artist, Garry Greenwood. The instruments include fanciful dragon headed Light-Harps, leather *Serpents* and *Monsters* that embody sensor interfaces, synthesis and signal processing technology. Practicable and intuitive instruments, they have been built with multi-parameter control in mind. Joint winners of the Karl Szucka Preis, their work of Bent Leather has gained selection at Bourges and won the IAWM New Genre Prize.

Inspired by the legacy of Percy Grainger's *Free music*, i.e. "music beyond the constraints of conventional pitch and rhythm" [Grainger, 1951], Bent Leather Band has strived to develop a new musical language that exploits the potentials of synthesis/signal processing, defining new expressive boundaries and dimensions and yet also connecting with a heritage of Grainger's musical discourse. Grainger conceived his music towards the end of the 19<sup>th</sup> Century, and spent in excess of fifty years bringing his ideas to fruition through composition for *theremin* ensemble, the development of 6<sup>th</sup> tone instruments [pianos and klaviers], the development of polyphonic reed instruments for portamento control and a series of paper roll, score driven electronic oscillator instruments.

**Tony Hicks** enjoys a high profile reputation as Australia's most versatile woodwind artist. Equally adept on saxophones, flutes and clarinets, his abilities span a broad spectrum of music genres. A student of Dr Peter Clinch Tony also studied at the Eastman School of Music. He has performed throughout Australia, and across Europe, the United States, Japan and China with a number of leading Australian ensembles including the Australian Art Orchestra, Elision, and the Peter Clinch Saxophone Quartet. He has performed saxophone concertos with the Melbourne Symphony Orchestra, and solo'd for Stevie Wonder and his band. As a jazz artist he has performed and recorded with leading jazz figures Randy Brecker, Billy Cobham, notable Australian artists, Paul Grabowsky, Joe Chindamo, David Jones, and also lead a number of important groups in the local Australian scene. An explorer of improvised music, he consistently collaborates with numerous artists both in Australia and overseas.

## **Description of Piece**

Bent Leather Band introduces their new extended instrument project, *Heretics Brew*. The aim of this project is to develop an extended line up with the aim of building a larger ensemble. So far the project [quintet] has developed a number of new extended saxophone controllers and is currently working on trumpets and guitars. Their instruments are based on Gluion *OSC*, interfaces; programmable frame gate array devices that have multiple configurable inputs and outputs. For *NIME08*, the ensemble trio will demonstrate their instruments, language and techniques through ensemble improvisation.

[Pictured Right: Gluisop extended saxophone]



# **The Suicided Voice**

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### Mark Bokowiec (Composer, Electronics & Software Designer)

Mark is the manager of the electro-acoustic music studios and the new Spacialization and Interactive Research Lab at the University of Huddersfield. Mark lectures in interactive performance, interface design and composition. Composition credits include: *Tricorder* a work for two quarter tone recorders and live MSP, commissioned by Ensemble QTR. Commissions for interactive instruments include: the *LiteHarp* for London Science Museum and *A Passage To India* an interactive sound sculpture commissioned by Wakefield City Art Gallery. CD releases include: *Route* (2001) the complete soundtrack on MPS and *Ghosts* (2000) on Sonic Art from Aberdeen, Glasgow, Huddersfield and Newcastle also on the MPS label. Mark is currently working on an interactive hydro-acoustic installation.

### Julie Wilson-Bokowiec (vocalist/performer, video and computer graphics)

Julie has creating new works in opera/music theatre, contemporary dance and theatre including: *Salome* (Hammersmith Odeon – Harvey Goldsmith/Enid production) *Suspended Sentences* (ICA & touring) *Figure Three* (ICA) for Julia Bardsley, *Dorian Grey* (LBT/Opera North), *Alice* (LBT) and a variety of large-scale site-specific and Body Art works. As a performer and collaborator Julie has worked with such luminaries as Lindsey Kemp, Genesis P-Orridge and Psychic TV and the notorious Austrian artist Hermann Nitsch. Julie and Mark began creating work with interactive technologies in 1995 developing the first generation of the **Bodycoder System** in 1996.

#### **The Suicided Voice**

(for performer/vocalist, the Bodycoder System, live MSP, video streaming & computer graphics)

The Suicided Voice is the second piece in the Vox Circuit Trilogy, a series of interactive vocal works completed in 2007. In this piece the acoustic voice of the performer is "suicided" and given up to digital processing and physical re-embodiment. Dialogues are created between acoustic and digital voices. Gender specific registers are willfully subverted and fractured. Extended vocal techniques make available unusual acoustic resonances that generate rich processing textures and spiral into new acoustic and physical trajectories that traverse culturally specific boundaries crossing from the human into the virtual, from the real into the mythical. The piece is fully scored, there are no pre-recorded soundfiles used and no sound manipulation external to the performer's control.

In The Suicided Voice the sensor interface of the Bodycoder System is located on the upper part of the torso. Movement data is mapped to live processing and manipulation of sound and images. The Bodycoder also provides the performer with real-time access to processing parameters and patches within the MSP environment. All vocalisations, decisive navigation of the MSP environment and Kinaesonic expressivity are selected, initiated and manipulated by the performer. The primary expressive functionality of the Bodycoder System is Kinaesonic. The term Kinaesonic is derived from the compound of two words: Kinaesthetic meaning the movement principles of the body and Sonic meaning sound. In terms of interactive technology the term Kinaesonic refers to the one-to-one, mapping of sonic effects to bodily movements. In our practice this is usually executed in real-time. The Suicided Voice was created in residency at the Banff Centre, Canada and completed in the electro-acoustic music facilities of the University of Huddersfield.



# Etch

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### Mark Bokowiec (Composer, Electronics & Software Designer)

Mark is the manager of the electro-acoustic music studios and the new Spacialization and Interactive Research Lab at the University of Huddersfield. Mark lectures in interactive performance, interface design and composition. Composition credits include: *Tricorder* a work for two quarter tone recorders and live MSP, commissioned by Ensemble QTR. Commissions for interactive instruments include: the *LiteHarp* for London Science Museum and *A Passage To India* an interactive sound sculpture commissioned by Wakefield City Art Gallery. CD releases include: *Route* (2001) the complete soundtrack on MPS and *Ghosts* (2000) on Sonic Art from Aberdeen, Glasgow, Huddersfield and Newcastle also on the MPS label. Mark is currently working on an interactive hydro-acoustic installation.

### Julie Wilson-Bokowiec (vocalist/performer, video and computer graphics)

Julie has creating new works in opera/music theatre, contemporary dance and theatre including: *Salome* (Hammersmith Odeon – Harvey Goldsmith/Enid production) *Suspended Sentences* (ICA & touring) *Figure Three* (ICA) for Julia Bardsley, *The Red Room* (Canal Café Theatre) nominated for the Whitbread London Fringe Theatre Award, *Dorian Grey* (LBT/Opera North), *Alice* (LBT) and a variety of large-scale site-specific and Body Art works. As a performer and collaborator Julie has worked with such luminaries as Lindsey Kemp, Genesis P-Orridge and Psychic TV and the notorious Austrian artist Hermann Nitsch. She guest lectures in digital performance at a number of University centres, and together with Mark, regularly publishes articles on interactive performance practice.

Julie and Mark began creating work with interactive technologies in 1995 developing the first generation of the **Bodycoder System** an onthe-body sensor interface that uses radio to transmit data in 1996. They have created and performed work with the Bodycoder System at various events and venues across Europe the US and Canada and at artist gatherings including ISEA and ICMC. Major works include Spiral Fiction (2002) commissioned by Digital Summer (cultural programme of the Commonwealth Games, Manchester). Cyborg Dreaming (2000/1) commissioned by the Science Museum, London. Zeitgeist at the KlangArt Festival and Lifting Bodies (1999) at the Trafo, Budapest as featured artists at the Hungarian Computer Music Foundation Festival NEW WAVES supported by the British Council.

### Etch

#### (for performer/vocalist, the Bodycoder System, live MSP & computer graphics)

Etch is the third work in the Vox Circuit Trilogy (2007). In Etch extended vocal techniques, Yakut and Bell Canto singing, are coupled with live interactive sound processing and manipulation. Etch calls forth fauna, building soundscapes of glitch infestations, howler tones, clustering sonic-amphibians, and swirling flocks of synthetic granular flyers. All sounds are derived from the live acoustic voice of the performer. There are no pre-recorded soundfiles used in this piece and no sound manipulation external to the performer's control. The ability to initiate, embody and manipulate both the acoustic sound and multiple layers of processed sound manipulated simultaneously on the limbs – requires a unique kind of perceptual, physical and aural precision. This is particularly evident at moments when the source vocal articulates of the performer, unheard in the diffused soundscape, enter as seemingly phantom sound cells pitch-changed, fractured and heavily processed. In such instances the sung score, and the diffused and physically manipulated soundscape seem to separate and the performer is seen working in counterpoint, articulating an unheard score. Etch is punctuated by such separations and correlations, by choric expansions, intricate micro constructions and moments when the acoustic voice of the performer soars over and through the soundscape.

Although the Bodycoder interface configuration for Etch is similar to that of The Suicided Voice, located on the upper torso - the functional protocols and qualities of physical expressivity are completely different. Interface flexibility is a key feature of the Bodycoder System and allows for the development of interactive works unrestrained by interface limitations or fixed protocols. The flexibility of the interface does however present a number of challenges for the performer who must be able to adapt to new protocols, adjust and temper her physical expressivity to the requirements of each piece.

The visual content of both Etch and The Suicided Voice was created in a variety of 2D and 3D packages using original photographic and video material. Images are processed and manipulated using the same interactive protocols that govern sound manipulation. Content and processing is mapped to the physical gestures of the performer. As the performer conjures extraordinary voices out of the digital realm, so she weaves a multi-layered visual environment combining sound, gesture and image to form a powerful 'linguistic intent'.

Etch was created in residency at the Confederation Centre for the Arts on Prince Edward Island, Nova Scotia in June 2007.

## Silent Movies: an improvisational sound / image performance

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### **Biographical information**

Thomas Ciufo is an improviser, sound / media artist, and researcher working primarily in the areas of electroacoustic improvisational performance and hybrid instrument / interactive systems design, and is currently serving as artist-in-residence in Arts and Technology at Smith College. Recent and ongoing sound works include, *three meditations*, for prepared piano and computer, the series, *sonic improvisations #N*, and *eighth nerve*, an improvisational piece for prepared electric guitar and computer. Recent performances include off-ICMC in Barcelona, Visione Sonoras in Mexico City, the SPARK festival in Minneapolis, the International Society for Improvised Music conference in Ann Arbor, and the Enaction in Arts conference in Grenoble.

### **Description of Piece**

#### Silent Movies: an improvisational sound / image performance

*Silent Movies* is an attempt to explore and confront some of the possible relationships / interdependencies between visual and sonic perception. In collaboration with a variety of moving image artists, this performance piece complicates visual engagement through performed / improvised sound. In a sense, *Silent Movies* plays with the live soundtrack idea, but from a somewhat different vantage point. Or maybe it is an inversion; a visual accompaniment to an improvised sonic landscape? For this performance, I will use a hybrid extended electric guitar / computer performance system, which allows me to explore extended playing techniques and sonic transformations provided by sensor controlled interactive digital signal processing. For tonight's performance, the moving image composition is by Mark Domino (fieldform.com).

For more information, please refer to online documentation: Guitar performance system : http://ciufo.org/eighth\_nerve\_guitar.html Performance documentation: http://ciufo.org/silent\_movies.html



# NIME Performance - The Color of Waiting

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## **Biographical information**

**Kinesthetech Sense** was founded by Alison Rootberg and Margaret Schedel in 2006 with the intent to collaborate with visual artists, dancers, and musicians, creating ferociously interactive experiences for audiences throughout the world. Rootberg, the Vice President of Programming for the Dance Resource Center, focuses on incorporating dance with video while Schedel, an assistant professor of music at Stony Brook University, combines audio with interactive technologies. Oskar Fischinger once said that, "everything in the world has its own spirit which can be released by setting it in motion." Together Rootberg and Schedel create systems which are set in motion by artistic input, facilitating interplay between computers and humans. Kinesthetech Sense has had their work presented throughout the US, Canada, Denmark, Germany, Italy, and Mexico. For more info, please go to: www.ksense.org

## **Description of Piece**

Developed in Amsterdam, at STEIM, The Color of Waiting uses animation, movement and video to portray themes of expectation. This collaboration (between animator Nick Fox-Gieg, chorographer/dancer Alison Rootberg, composer/programmer Margaret Schedel, and set designer Abra Brayman) deals with the anticipation of events by understanding the way time unfolds. The performers shift between frustration and acceptance as they portray the emotions evoked when waiting for something or someone. **The Color of Waiting** is an experience and a mood, an abstraction depicting human interaction.

# **Sonic Construction**

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## **Biographical information**

Jon Drummond is a Sydney based composer and performer. His creative work spans the fields of instrumental music, electroacoustic, interactive, sound and new media arts. Jon's electroacoustic and interactive work has been presented widely including the International Computer Music Conferences (Denmark 1994, Canada 1995, Greece 1997, China 1999, Singapore 2003), Electrofringe, Totally Huge New Music Festival, Darwin International Guitar Festival and the Adelaide Festival of Arts. Many of his acoustic and electronic compositions have been commissioned and performed by leading Australian performers and ensembles including austraLYSIS, The Song Company, Ros Dunlop and Kathleen Gallagher. Recently Jon has been exploring the use of environmental signals from the natural world as generative devices for creating electroacoustic sound - video tracking the fluid motions of water in "Sonic Construction" and the motion of air through the use of kites in "Sounding the Winds".

### **Description of Piece**

Inspired by the swirls, vortices and lemniscate like patterns created by moving water and other fluids, Sonic Construction uses the movement of coloured dyes in a semi-viscous liquid to generate and control sound. The work is performed by dropping different coloured dyes (red, green, yellow, blue) into a clear glass vessel filled with water, made slightly viscous through the addition of a sugar syrup (Figure 2). Through the use of video tracking, the speed, colour and spatial location of the different coloured drops of dye are analysed as they are dropped into the glass vessel and subsequently expand, swirl, coil and entwine in the water. The control data derived from the video tracking of the ink drops is used to define both the shape and the way in which individual grains of sound are combined using FOF (Fonction d'Onde Formatique translated as Formant Wave-Form or Formant Wave Function) synthesis [1] [2], to create a rich and varied timbral sound environment. In developing Sonic Construction I sought to create a system that would provide a sense of connection with the interactive processes being employed and at the same time to create a system over which I had only limited direct control; ideally being influenced by the system's responses as much as I was influencing the system.

Timbres produced by the system include bass-rich pulse streams, vocal textures and a variety of bell like sounds. The fluid movement of the coloured dye in the liquid is further used to spatialise the outputs of the FOF synthesis. The video captured of the dyes in the liquid, used for motion analysis and colour matching, is also projected back into the performance space, slightly processed using contrast, saturation and hue effects (Figure 2).



Figure 1 Performance interface for Sonic Construction.



Figure 2 Sonic Construction–re-projected image into the installation space.

- [1] Rodet, X. (1984). Time-Domain Formant-Wave-Function Synthesis, Computer Music Journal, 8 (3), 9–14.
- [2] Rodet, X (2000). Sound Analysis, Processing and Synthesis Tools for Music Research and Production, *In Proceedings of the 2000* 13th Colloquium on Musical Informatics (CIM 2000). L'Aguila, Italy.

# MoPho – A Suite for a Mobile Phone Orchestra

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### **Biographical information**

Ge Wang received his B.S. in Computer Science in 2000 from Duke University, PhD (soon) in Computer Science (advisor Perry Cook) in 2008 from Princeton University, and is currently an assistant professor at Stanford University in the Center for Computer Research in Music and Acoustics (CCRMA). His research interests include interactive software systems (of all sizes) for computer music, programming languages, sound synthesis and analysis, music information retrieval, new performance ensembles (e.g., laptop orchestra) and paradigms (e.g., live coding), visualization, interfaces for human-computer interaction, interactive audio over networks, and methodologies for education at the intersection of computer science and music. Ge is the chief architect of the ChucK audio programming language and the Audicle environment. He was a founding developer and co-director of the Princeton Laptop Orchestra (PLOrk), the founder and director of the Stanford Laptop Orchestra (SLOrk), and a co-creator of the TAPESTREA sound design environment. Ge composes and performs via various electro-acoustic and computer-mediated means, including with PLOrk/SLOrk, with Perry as a live coding duo, and with Princeton graduate student and comrade Rebecca Fiebrink in a duo exploring new performance paradigms, cool audio software, and great food.

Georg Essl is currently Senior Research Scientist at Deutsche Telekom Laboratories at TU-Berlin, Germany. He works on mobile interaction, new interfaces for musical expression and sound synthesis algorithms that are abstract mathematical or physical models. After he received his Ph.D. in Computer Science at Princeton University under the supervision of Perry Cook he served on the faculty of the University of Florida and worked at the MIT Media Lab Europe in Dublin before joining T-Labs.

Henri Penttinen was born in Espoo, Finland, in 1975. He completed his M.Sc. and PhD (Dr. Tech.) degrees in Electrical Engineering at the Helsinki University of Technology (TKK) in 2002 and 2006, respectively. He conducted his studies and teaches about digital signal processors and audio processing at the Department of Signal Processing and Acoustics (until 2007 known as Laboratory of Acoustics and Signal Processing) at TKK. Dr. Penttinen was a visiting scholar at Center for Computer Research in Music and Acoustics (CCRMA), Stanford University, during 2007 and 2008. His main research interests are sound synthesis, signal processing algorithms, musical acoustics, real-time audio applications in mobile environments. He is one of the co-founders and directors, with Georg Essl and Ge Wang, of the Mobile Phone Orchestra of CCRMA (MoPhO). He is also the co-inventor, with Jaakko Prättälä, of the electro-acoustic bottle (eBottle). electro-acoustic pieces have been performed around Finland, the USA, and His in Cuba. Additional Composer Biography: Jeffrey Cooper is a musician / producer from Bryan, Texas. Having worked as a programmer and DJ for a number of years, he is currently finishing a Master Degree in Music, Science, and Technology at Stanford University / CCRMA. Cocomposer of music for mobile phones with the honorable Henri Penttinen.

#### **Description of Piece**

The Mobile Phone Orchestra is a new repetoire-based ensemble using mobile phones as the primary musical instrument. The MoPhO Suite contains a selection of recent compositions that highlights different aspects of what it means to compose for and perform with such an instrument in an ensemble setting. Brief program note: The Mobile Phone Orchestra of CCRMA (MoPhO) presents an ensemble suite featuring music performed on mobile phones. Far beyond ring-tones, these interactive musical works take advantage of the unique technological capabilities of today's hardware, transforming phone keypads, built-in accelerometers, and built-in microphones into powerful and yet mobile chamber meta-instruments. The suite consists of selection of representative pieces:

\*\*\*Drone In/Drone Out (Ge Wang): human players, mobile phones, FM timbres, accelerometers.

\*\*\*TamaG (Georg Essl): TamaG is a piece that explores the boundary of projecting the humane onto mobile devices and at the same time display the fact that they are deeply mechanical and artificial. It explores the question how much control we have in the interaction with these devices or if the device itself at times controls us. The piece work with the tension between these positions and crosses the desirable and the alarming, the human voice with mechanical noise. The alarming effect has a social quality and spreads between the performers. The sounding algorithm is the non-linear circle map which is used in easier-to-control and hard-to-control regimes to evoke the effects of control and desirability on the one hand the the loss of control and mechanistic function on the other hand.

\*\*\*The Phones and Fury (Jeff Cooper and Henri Penttinen): how much damage can a single player do with 10 mobile phones? Facilitating loops, controllable playback speed, and solo instruments.

\*\*\*Chatter (Ge Wang): the audience is placed in the middle of a web of conversations...